

[Handwritten signature]

RUSH

Access DB#

108686

SEARCH REQUEST FORM

Scientific and Technical Information Center

94

Requester's Full Name: FRED E HICHIMYA Examiner #: 79719 Date: 11/19/03
Art Unit: 2172 Phone Number 30 5-8039 Serial Number: 09/836952
Mail Box and Bldg/Room Location: 4D43 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: SYSTEM AND METHOD FOR PROVIDING CONTEXT-AWARE COMPUTER
MANAGEMENT USING SMART IDENTIFICATION BADGES.
Inventors (please provide full names): MEHRAN JAM

Earliest Priority Filing Date: 11/21/03

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Claims 1, 2, 11, 12

Please concentrate on the underlined words on the above ~~claim~~ attached claims.

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>David Holloway</u>	NA Sequence (#) _____	STN _____
Searcher Phone #: <u>308-7794</u>	AA Sequence (#) _____	Dialog <u>✓</u>
Searcher Location: <u>CPH 7 4830</u>	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: <u>11-20-03</u>	Bibliographic _____	Dr.Link _____
Date Completed: <u>11-20-03</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext <u>✓</u>	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet <u>✓</u>
Online Time: _____	Other _____	Other (specify) _____



STIC Search Report

EIC 2100

STIC Database Tracking Number: 108686

TO: Fred Ehichoya
Location: 4D43
Art Unit : 2172
Thursday, November 20, 2003

Case Serial Number: 09/836952

From: David Holloway
Location: EIC 2100
PK2-4B30
Phone: 308-7794

david.holloway@uspto.gov

Search Notes

Dear Examiner Ehichoya,

Attached please find your search results for above-referenced case.
Please contact me if you have any questions or would like a re-focused search.

David



Set	Items	Description
S1	165204	BADGE? OR RFID? ? OR BUTTON? OR PIN OR PINS OR FOB OR FOBS OR TOKEN? OR ID OR IDCARD? OR IDENTIFICATION()CARD? OR IDS
S2	3421	S1(3N) (SMART? OR INTELLIGENT? OR CHIP? OR IC OR INTEGRATED- ()CIRCUIT? OR TRANSPONDER?)
S3	1997483	WIRELESS? OR RF OR RADIOFREQ? OR IR OR INFRARED? OR WIFI - OR WAP OR BLUETOOTH? OR CELLULAR?
S4	2890183	ACCESS? OR CLEARANCE? OR PERMISSION? OR PERMIT? OR ALLOW?
S5	575357	(MULTIPL? OR SEVERAL OR VARIOUS OR VARIETY OR MANY OR PLUR- AL?) (3N) (LEVEL? OR TIER? OR TYPE?) OR MULTILEVEL? OR MULTILAY- ER?
S6	15114245	NETWORK? OR SYSTEM? OR LAN? OR DATABASE? OR DATA() (BASE? OR BANK?) OR DATABANK? OR WEBSITE? OR WEBPAGE? OR WEB() (SITE? OR PAGE?) OR INTRANET?
S7	517575	BEACON? OR TRANSMITTER? OR TRANSPONDER? OR ANTENNA? OR REC- EIVER?
S8	3	S2 AND S3 AND S4 AND S5
S9	71	S2 AND S3 AND S7
S10	1	S9 AND S5
S11	45	S9 AND S6
S12	56	S2 AND S3 AND S4
S13	0	S2 AND S4(2N)S5
S14	12	S4 AND S9
S15	38	S12 AND (ACCESS? OR AUTHORI? OR PERMISSION? OR SECURE? OR - SECURI?)
S16	83	S8 OR S10 OR S11 OR S14 OR S15
S17	62	RD (unique items)
S18	39	S17 NOT PY>20001
S19	39	S18 NOT PD>20010417
File	8: Ei	Compendex(R) 1970-2003/Nov W2 (c) 2003 Elsevier Eng. Info. Inc.
File	35: Dissertation	Abs Online 1861-2003/Oct (c) 2003 ProQuest Info&Learning
File	202: Info. Sci. & Tech.	Abs. 1966-2003/Nov 17 (c) 2003 EBSCO Publishing
File	65: Inside	Conferences 1993-2003/Nov W3 (c) 2003 BLDSC all rts. reserv.
File	2: INSPEC	1969-2003/Nov W2 (c) 2003 Institution of Electrical Engineers
File	94: JICST-EPlus	1985-2003/Nov W3 (c) 2003 Japan Science and Tech Corp(JST)
File	111: TGG Natl.	Newspaper Index(SM) 1979-2003/Nov 17 (c) 2003 The Gale Group
File	233: Internet & Personal	Comp. Abs. 1981-2003/Jul (c) 2003, EBSCO Pub.
File	144: Pascal	1973-2003/Nov W2 (c) 2003 INIST/CNRS
File	434: SciSearch(R)	Cited Ref Sci 1974-1989/Dec (c) 1998 Inst for Sci Info
File	34: SciSearch(R)	Cited Ref Sci 1990-2003/Nov W3 (c) 2003 Inst for Sci Info
File	62: SPIN(R)	1975-2003/Oct W1 (c) 2003 American Institute of Physics

19/5/2 (Item 2 from file: 8)
DIALOG(R) File 8: Ei Compendex(R)
(c) 2003 Elsevier Eng. Info. Inc. All rts. reserv.

05448093 E.I. No: EIP99124954740

Title: 13.56MHz CMOS RF identification transponder integrated circuit with a dedicated CPU

Author: Masui, Shoichi; Ishii, Eiichi; Iwawaki, Takanori; Sugawara, Yoshikazu; Sawada, Kikuzo

Corporate Source: Nippon Steel Corp, Kanagawa, Jpn

Conference Title: Proceedings of the 1999 46th IEEE International Solid-State Circuits Conference (ISSCC'99)

Conference Location: San Francisco, CA, USA Conference Date: 19990215-19990217

E.I. Conference No.: 55474

Source: Digest of Technical Papers - IEEE International Solid-State Circuits Conference 1999. p 162-163

Publication Year: 1999

CODEN: DTPCDE ISSN: 0193-6530

Language: English

Document Type: JA; (Journal Article) Treatment: X; (Experimental)

Journal Announcement: 0002W2

Abstract: The advent of radio-frequency identification technology (RFID) spells expectations of higher data rates in present **systems**. Complex functions, such as anti-collision and authentication, are indispensable in **transponder** ICs despite the fact that their addition increases power consumption. To achieve the high data rate with high magnetic field emission from interrogators, the 13.56MHz ISM band is appropriate for **RF** power and data transmission. These **RF** and analog circuits for a 13.56MHz **RFID transponder IC** are associated clocking and anti-collision techniques controlled by a dedicated CPU. 2 Refs.

Descriptors: **Transponders**; CMOS integrated circuits; Radio **systems**; Radio transmission; Demodulation; Modulation; Data transfer; PROM; Electric rectifiers; MOSFET devices

Identifiers: Radio frequency identification technology; Central processing unit; Anticollision techniques; Interrogators; Half duplex transmission mode; Input output registers; Electrically erasable PROM; Power dissipation

Classification Codes:

716.3 (Radio Systems & Equipment); 714.2 (Semiconductor Devices & Integrated Circuits); 723.2 (Data Processing); 722.1 (Data Storage, Equipment & Techniques); 713.5 (Other Electronic Circuits); 701.2 (Magnetism: Basic Concepts & Phenomena)

716 (Radar, Radio & TV Electronic Equipment); 714 (Electronic Components); 723 (Computer Software); 722 (Computer Hardware); 713 (Electronic Circuits); 701 (Electricity & Magnetism)

71 (ELECTRONICS & COMMUNICATIONS); 72 (COMPUTERS & DATA PROCESSING); 70 (ELECTRICAL ENGINEERING)

19/5/5 (Item 5 from file: 8)

DIALOG(R)File 8:Ei Compendex(R)

(c) 2003 Elsevier Eng. Info. Inc. All rts. reserv.

04846868 E.I. No: EIP97103856857

Title: Energy-conserving access protocol for wireless communication

Author: Chlamtac, Imrich; Petrioli, Chiara; Redi, Jason

Corporate Source: Boston Univ, MA, USA

Conference Title: Proceedings of the 1997 IEEE International Conference on Communications, ICC. Part 2 (of 3)

Conference Location: Montreal, Can Conference Date: 19970608-19970612

Sponsor: IEEE

E.I. Conference No.: 47077

Source: IEEE International Conference on Communications v 2 1997. IEEE, Piscataway, NJ, USA, 97CB36067. p 1059-1062

Publication Year: 1997

CODEN: 002115

Language: English

Document Type: CA; (Conference Article) Treatment: T; (Theoretical)

Journal Announcement: 9712W1

Abstract: A myriad of applications such as radio frequency identification (**RFID**) and **smart** card networks are emerging in which nodes are designed for extremely low-cost, large scale applications such that the replacement of batteries is not feasible. Energy conservation therefore becomes a major constraint. Classical **access** protocols are either not energy conserving or lead to unacceptable delays. In this paper, we propose a communication protocol which meets the energy constraints while yielding low **access** delays. (Author abstract) 5 Refs.

Descriptors: *Network protocols; Radio communication; Smart cards; Energy conservation

Identifiers: Energy conserving **access** protocol; **Radiofrequency** identification

Classification Codes:

722.3 (Data Communication, Equipment & Techniques); 525.2 (Energy Conservation)

723 (Computer Software); 716 (Radar, Radio & TV Electronic Equipment); 722 (Computer Hardware); 525 (Energy Management)

72 (COMPUTERS & DATA PROCESSING); 71 (ELECTRONICS & COMMUNICATIONS); 52 (FUEL TECHNOLOGY)

19/5/8 (Item 8 from file: 8)
DIALOG(R) File 8: Ei Compendex(R)
(c) 2003 Elsevier Eng. Info. Inc. All rts. reserv.

04064133 E.I. No: EIP95022562601

Title: RFID tags connect smart cars to smart highways

Author: Legg, Gary

Source: EDN v 39 n 26 Dec 22 1994. p 33-36

Publication Year: 1994

CODEN: EDNSBH **ISSN:** 0012-7515

Language: English

Document Type: JA; (Journal Article) **Treatment:** G; (General Review)

Journal Announcement: 9504W3

Abstract: To solve the heavy traffic on California State Route 91, the highways are getting help from electronics to deal with situation. A year from now, part of SR-91 will be a 'smart' highway, maintaining automatic, two-way electronic communication with cars to help traffic flow more smoothly. Cars on Sr-91 will be smart, too, because of a simple communication device called an RFID tag. When the SR-91 control system queries them, the RFID tags act simply as tranponders that send short, unique codes. The system can electronically collect prepaid tolls, eliminating the need for motorists to stop or even slowdown at toll booths. Traffic will move more quickly, fuel economy will improve, and pollutants will decrease. 1 Refs.

Descriptors: Identification (control systems); Telecommunication links; Intelligent vehicle highway systems ; Automobiles; Information services; Antennas ; Highway traffic control; Transponders ; Data communication systems ; Network protocols

Identifiers: RF identification tags; Smart cars; Smart highways

Classification Codes:

731.2 (Control System Applications); 722.3 (Data Communication, Equipment & Techniques); 406.2 (Roads & Streets); 662.1 (Automobiles); 903.4 (Information Services); 715.2 (Industrial Electronic Equipment)

731 (Automatic Control Principles); 722 (Computer Hardware); 406 (Highway Engineering); 662 (Automotive Design & Manufacture); 903 (Information Science); 715 (General Electronic Equipment)

73 (CONTROL ENGINEERING); 72 (COMPUTERS & DATA PROCESSING); 66 (AUTOMOTIVE ENGINEERING); 90 (GENERAL ENGINEERING); 71 (ELECTRONICS & COMMUNICATIONS)

19/5/13 (Item 13 from file: 8)

DIALOG(R)File 8:Ei Compendex(R)

(c) 2003 Elsevier Eng. Info. Inc. All rts. reserv.

02808921 E.I. Monthly No: EIM8910-038141

Title: Short range UHF telemetry system using passive transponders for vehicle ID and status information.

Author: Koelle, Alfred R.

Corporate Source: AMTECH Technology Corp, Sante Fe, NM, USA

Conference Title: IEEE Workshop on Automotive Applications of Electronics - 1988

Conference Location: Dearborn, MI, USA

Sponsor: IEEE; Industrial Electronics Society; Vehicular Technology Society

E.I. Conference No.: 12253

Source: IEEE Workshop Automot Appl Electron 1988 IEEE. Publ by IEEE, IEEE Service Center, Piscataway, NJ, USA. Available from IEEE Service Cent (cat n 88TH0231), Piscataway, NJ, USA. p 34-38

Publication Year: 1988

Language: English

Document Type: PA; (Conference Paper) Treatment: A; (Applications); X; (Experimental)

Journal Announcement: 8910

Abstract: An electronic tag and reader **system** using modulated backscatter at 915 MHz or 2450 MHz is described which has a reading range from several centimeters to tens of meters, reads a 128-bit message in 30 ms, can read tags in motion, and discriminates between tags in the field of view by proximity. It is concluded that this electronic ID **system** can now be used for the automatic identification of vehicles. This **system** uses high-frequency **RF** signals to read remotely an electronically coded ID or other message from a tag mounted to the vehicle (or other object to be identified), whether the vehicle is stationary or moving. It has been tested on trucks, railway cars, intermodal containers, and automobiles to perform quickly, inexpensively, and reliably tasks that until now were done by human operators.

Descriptors: AUTOMOBILES--*Electronic Equipment; **TELEMETERING SYSTEMS ; TRANSPONDERS**

Identifiers: UHF **TELEMETRY**; **PASSIVE TRANSPONDERS** ; **ELECTRONIC TAG**; **ELECTRONIC ID SYSTEM** ; **AUTOMATIC IDENTIFICATION**

Classification Codes:

662 (Automotive Design & Manufacture); 715 (General Electronic Equipment); 716 (Radar, Radio & TV Electronic Equipment); 718 (Telephone & Line Communications)

66 (AUTOMOTIVE ENGINEERING); 71 (ELECTRONICS & COMMUNICATIONS)

19/5/21 (Item 5 from file: 2)

DIALOG(R) File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6230427 INSPEC Abstract Number: A1999-11-8780-003, B1999-06-7510J-009, C1999-06-7330-052

Title: A novel computerized system for analyzing motor and social behavior in groups of animals

Author(s): Vatine, J.-J.; Ratner, A.; Dvorkin, M.; Seltzer, Z.

Author Affiliation: Dept. of Phys. Med. & Rehabilitation, Hadassah Univ. Hosp., Jerusalem, Israel

Journal: Journal of Neuroscience Methods vol.85, no.1 p.1-11

Publisher: Elsevier,

Publication Date: 1 Nov. 1998 Country of Publication: Netherlands

CODEN: JNMEDT ISSN: 0165-0270

SICI: 0165-0270(19981101)85:1L:1:NCSA;1-#

Material Identity Number: J327-1998-013

U.S. Copyright Clearance Center Code: 0165-0270/98/\$19.00

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P); Experimental (X)

Abstract: The authors present here the VMB Tracking **System**, a novel method for tracking locomotor activity, posture, thigmotactic scanning behavior and social interactions of up to 8 animals at a time, at a high resolution (up to +or-0.1 mm). The authors used a commercially available computerized **system** that is considerably cheaper than other available methods. This **system** utilizes a basic personal computer controlling 3 **transponders** ('towers') fixed in space above the tested area, where animals as small as rats stroll freely in their normal habitat or in an experimental arena. Each tower emits infra-red (**IR**) pulses to a **transponder** (' **button** ') adhered to a plastic mount glued to a shaved area of skin on the animal's back. When the button detects the **IR** pulses it responds with a button-specific ultrasonic signal that is fed back to the towers. The 3D location of the buttons is calculated by triangulation. Movement parameters of each button, such as displacement trajectory, time, speed and acceleration, can be displayed on-line and stored for off-line analysis. This **system** can be used to track animals in any lighting conditions, and to assess drug effects on the CNS, neuromuscular junction or muscle. As an example the authors demonstrate the ataxic effects of pentobarbital in rats. (19 Refs)

Subfile: A B C

Descriptors: biological techniques; biology computing; biomechanics; microcomputer applications; optical tracking; **transponders**

Identifiers: social behavior; animal groups; VMB Tracking **System**; locomotor activity; posture; thigmotactic scanning behavior; social interactions; basic personal computer; rats; normal habitat; experimental arena; infra-red pulses; shaved skin area; button-specific ultrasonic signal; biological research instrumentation; off-line analysis; drug effects assessment; movement parameters; neuromuscular junction; muscle; CNS; ataxic effects; pentobarbital

Class Codes: A8780 (Biophysical instrumentation and techniques); A8745D (Physics of body movements); B7510J (Optical and laser radiation (biomedical imaging/measurement)); C7330 (Biology and medical computing)

Copyright 1999, IEE

19/5/22 (Item 6 from file: 2)

DIALOG(R) File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

5978964 INSPEC Abstract Number: B9809-6210L-023, C9809-5620W-014

Title: Using location and environment awareness in mobile communications

Author(s): Beadle, H.W.P.; Maguire, C.Q., Jr.; Smith, M.T.

Author Affiliation: The Inst. for Telecommun. Res., Wollongong Univ., NSW, Australia

Conference Title: Proceedings of ICICS, 1997 International Conference on Information, Communications and Signal Processing. Theme: Trends in Information Systems Engineering and Wireless Multimedia Communications (Cat. No.97TH8237) Part vol.3 p.1781-5 vol.3

Publisher: IEEE, New York, NY, USA

Publication Date: 1997 Country of Publication: USA 3 vol. xxxiv+1819 pp.

ISBN: 0 7803 3676 3 Material Identity Number: XX98-00188

U.S. Copyright Clearance Center Code: 0 7803 3676 3/97/\$10.00

Conference Title: Proceedings of 1st International Conference on Information Communications and Signal Processing

Conference Date: 9-12 Sept. 1997 Conference Location: Singapore

Language: English Document Type: Conference Paper (PA)

Treatment: Applications (A); Practical (P)

Abstract: We are investigating the use of badge based wearable computers to create highly mobile location and environment aware systems. When coupled to **intelligent** servers the **badges** provide an unparalleled platform for human centred information environments. This paper describes the architecture of the badge, its distributed computing environment, and presents initial results of application development trials conducted by a class of telecommunications students at KTH. (21 Refs)

Subfile: B C

Descriptors: **access** control; computer architecture; distributed processing; Internet; mobile communication; optical communication; portable computers

Identifiers: environment awareness; location awareness; mobile communications; badge based wearable computers; intelligent servers; human centred information environments; network architecture; distributed computing; KTH; mobile computing; **access** control system; **IR** technology; Internet

Class Codes: B6210L (Computer communications); B6260 (Optical links and equipment); C5620W (Other computer networks); C5430 (Microcomputers)

Copyright 1998, IEE

19/5/23 (Item 7 from file: 2)

DIALOG(R) File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

5860285

Title: ID busts perceptions: crucial tech advances

Author(s): Zalud, B.

Journal: Security vol.35, no.1 p.55

Publisher: Cahnners Publishing,

Publication Date: Jan. 1998 Country of Publication: USA

CODEN: SECUEU ISSN: 0890-8826

SICI: 0890-8826(199801)35:1L.55:BPCT;1-U

Material Identity Number: K674-98003

Language: English Document Type: Journal Paper (JP)

Treatment: Economic aspects (E)

Abstract: Overcoming a perception of student IDs, drivers licenses and factory badges, identification cards have become a crucial **security** element. All types of organizations now use more photo ID cards and badges, and they are more often part of an integrated **security** approach. Automated ID systems will evolve from emerging to established technology, driven in great part by radio frequency and magnetic identification, **ID**-enabled **smart** card, product source tagging and higher **security** features. (0 Refs)

Subfile: D

Descriptors: biometrics (**access** control); identification; smart cards

Identifiers: identification cards; photo ID cards; photo ID badges; integrated **security** approach; automated ID systems; **radiofrequency** identification; magnetic identification; **ID**-enabled **smart** card; product source tagging

Class Codes: D1060 (Security)

Copyright 1998, IEE

19/5/27 (Item 11 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

4887461

Title: Keeping intruders out (high security access control)

Journal: Banking World vol.13, no.2 p.18-19

Publication Date: Feb. 1995 Country of Publication: UK

CODEN: BAWOEX ISSN: 0737-6413

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: Banks and other institutions seeking to ensure that only **authorised** personnel obtain entry to high **security** premises are now exploring contactless chip technology. The principle is straightforward. The **chip** (on a keyring, **badge** or card) carries a small radio frequency "**transponder**"; when the **transponder** is interrogated by a terminal at the entrance to the building it transmits the appropriate encoded data to establish the entrant's identity. **Radiofrequency** identification (**RF**-ID) technology is usually supplied in the form of "tags" (or "badges") worn by employees. Financial institutions seeking to control **access** to high **security** premises-typically computer installations-may find it rewarding to go far afield for the contactless technology they are seeking. Tag technology is now being incorporated by several suppliers into cards which have the dimensions of a standard bank or credit card; such a card can carry more information than just the tag; this extra information can include the employee's name (printed in clear) and a photograph. Contactless chip technology is just the latest in a line of electronic devices used to provide **access** control. The different technologies on offer vary considerably in cost; the decision on which **system** to adopt is by no means an easy one. (0 Refs)

Subfile: D

Descriptors: **access** control; banking

Identifiers: high **security** **access** control devices; intruders; high **security** premises; **security** devices; contactless chip technology; radio frequency **transponder**; encoded data; **radiofrequency** identification technology; tags; badge; proximity terminals; financial institutions; computer installations; Westinghouse **Security** Electronics; multi-technology **RF**-ID cards; QuadraKey card; magnetic stripe; photo ID; bar code; reading range; cost

Class Codes: D1060 (Security); D3035 (Monitoring and alarm systems); D2050E (Banking)

Copyright 1995, IEE

19/5/29 (Item 13 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

4494639 INSPEC Abstract Number: B9311-6250-034

Title: A low power RD ID transponder

Author(s): Page, R.

Author Affiliation: Wenzel Associates, Austin, TX, USA

Journal: R.F. Design vol.16, no.7 p.31-2, 34, 36

Publication Date: July 1993 Country of Publication: USA

CODEN: RFDEEG ISSN: 0163-321X

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: The author describes the design, operation and application of a low-power **RF** identification **transponder**. The simple design is spectrum friendly, requiring minimal interrogation power and **allows** easy conversion to spread spectrum without modification to the **transponder**. Designed with one inexpensive microwave part on a single piece of FR-4 substrate, component and manufacturing costs are kept down, potentially opening up markets served exclusively by bar coding technology. Other uses include automatic tolling, inventory tracking and military vehicle **security**. (3 Refs)

Subfile: B

Descriptors: identification; microwave links; radio equipment;

transponders

Identifiers: low power; RD ID **transponder**; identification; interrogation power; microwave part; FR-4 substrate; automatic tolling; inventory tracking; military vehicle **security**

Class Codes: B6250 (Radio links and equipment)

DOCUMENT RETRIEVAL REQUEST FORM

Requester's Name: Fred Ehichioya				Case Serial Number:				Art Unit/Org.: 2172			
Phone: 305-8039		Fax:		Building: PK2		Room Number: 4D43					
Date of Request: 11/20/03						Date Needed By:					
Paste or add text of citation or bibliography:				Paste Citation		Only one request per form. Original copy only. <input type="checkbox"/>					
Author/Editor:											
Book Title:											
Article Title:											
Volume Number:		Report Number:		Pages:							
ISBN Number:		Series Number:		Year of Publication:							
Publisher:											
<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">125</div>		Remarks:									

Library Action	PTO		LC		NAL		NIH		NLM		NIST		Other	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Local Attempts	X													
Date	11/20													
Initials	nd (308-5111)													
Results	Comp													
Examiner Called														
Page Count														
Money Spent														

		Source										Date	
Remarks/Comments <small>1st and 2nd denotes time taken to a library</small> <small>O/N – Under NLM means Overnight</small>	Ordered From: Comments:												

19/5/22 (Item 6 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

5978964 INSPEC Abstract Number: B9809-6210L-023, C9809-5620W-014

Title: Using location and environment awareness in mobile communications

Author(s): Beadle, H.W.P.; Maguire, C.Q., Jr.; Smith, M.T.

Author Affiliation: The Inst. for Telecommun. Res., Wollongong Univ.,
NSW, Australia

Conference Title: Proceedings of ICICS, 1997 International Conference on
Information, Communications and Signal Processing. Theme: Trends in
Information Systems Engineering and Wireless Multimedia Communications
(Cat. No.97TH8237) Part vol.3 p.1781-5 vol.3

Publisher: IEEE, New York, NY, USA

Publication Date: 1997 Country of Publication: USA 3 vol. xxxiv+1819

pp.

ISBN: 0 7803 3676 3 Material Identity Number: XX98-00188

U.S. Copyright Clearance Center Code: 0 7803 3676 3/97/\$10.00

Conference Title: Proceedings of 1st International Conference on
Information Communications and Signal Processing

Conference Date: 9-12 Sept. 1997 Conference Location: Singapore

Language: English Document Type: Conference Paper (PA)

Treatment: Applications (A); Practical (P)

Abstract: We are investigating the use of badge based wearable computers
to create highly mobile location and environment aware systems. When
coupled to **intelligent** servers the **badges** provide an unparalleled
platform for human centred information environments. This paper describes
the architecture of the badge, its distributed computing environment, and
presents initial results of application development trials conducted by a
class of telecommunications students at KTH. (21 Refs)

Subfile: B C

Descriptors: **access** control; computer architecture; distributed
processing; Internet; mobile communication; optical communication; portable
computers

Identifiers: environment awareness; location awareness; mobile
communications; badge based wearable computers; intelligent servers; human
centred information environments; network architecture; distributed
computing; KTH; mobile computing; **access** control system; **IR** technology;
Internet

Class Codes: B6210L (Computer communications); B6260 (Optical links and
equipment); C5620W (Other computer networks); C5430 (Microcomputers)

Copyright 1998, IEE

Fred E.

308-8039

Using Location and Environment Awareness in Mobile Communications

H. W. Peter Beadle

The Institute for
Telecommunications Research
University of Wollongong
Northfields Avenue
Wollongong 2522
AUSTRALIA

beadle@elec.uow.edu.au

Phone: +61-42-21-3412,

FAX: +61-42-21-3236

G. Q. Maguire Jr.

Computer Communication Systems
Department of Teleinformatics
Royal Institute of Technology
Electrum 204
S-164 40 Kista
SWEDEN

maguire@it.kth.se

M. T. Smith

Computer Peripherals Lab
Hewlett Packard Laboratories,
Building 2U
P.O. Box 10490
Palo Alto, California 94303-0971
U.S.A

msmith@hpl.hp.com

Abstract: *We are investigating the use of Badge based wearable computers to create highly mobile location and environment aware systems. When coupled to intelligent servers the Badges provide an unparalleled platform for human centred information environments.*

This paper describes the architecture of the Badge, its distributed computing environment, and presents initial results of application development trials conducted by a class of Telecommunications students at KTH.

Keywords: *badge, location dependent, location aware, location tracking, mobile computing, user trials.*

1. Background

A badge is a culturally evolved identification and access control system. Wearing a badge identifies you as part of a group and may confer rank and privilege upon the wearer. Until recently badges were passive and identification and access control was performed by other humans. Badges then started to evolve and acquired images, names, bar codes, magnetic stripes, and finally microprocessors and various types of transponders. Perhaps the first truly active badge was the one developed at the Olivetti Oracle Cambridge Research Lab [ORL] which transmitted its identity using an infrared data link. The Active Badge™ has since been employed in building access control, tracking equipment and personnel, and controlling desktop computer environments. The ORL Badges were further developed by Xerox PARC into other forms of Ubiquitous Computing [UBI].

Badges have evolved to make access control and authentication easier. We believe that computer and sensor augmented badges can also act as user interaction devices providing a convenient human-centred way for people to

interact with the ever expanding computing and communications environment they find themselves immersed in. Most importantly a Badge provides the last link in the computing and communications environment allowing the "system" to know where the user is and what the environment is like at that location rather than just the network addresses of the user's computing and communication peripherals.

2. Badges

To be viable a badge must be small, light and convenient to wear. A computationally and environmentally augmented badge has some additional features and requirements that contribute to its design:

- long battery life
- short, predictable transmission range
- privacy and security
- interoperability with other office and domestic devices
- provides useful environmental indicators

These requirements have led us to design a Badge based on industry standard IrDA infrared technology. Infrared signals do not travel through building walls and the IrDA IrLAP protocol is designed to be robust in the presence of interference and multi-path effects. This gives the Badge a line-of-site transmission range of 1 meter, and a viewing angle of approximately 30°. Thus if a sensor detects the Badges signal it knows the badge wearers location with reasonable accuracy. Location can also be sensed from the environment using techniques like GPS. Unfortunately most of these techniques either don't work indoors or don't provide enough accuracy on their own to be able to state that a badge wearer is co-located with a piece of equipment in an office or domestic setting. Hence we use the Badge as

an infrared beacon system to provide adjacency based location information.

Power consumption must be low so the Badge can be worn for long periods without the inconvenience of changing the batteries. The desire for low power consumption also dictates that Badge transmissions should be relatively fast as transmission is the main use of power in the system.

Alternate technologies are available including ultrasound, near-field and radio frequency transceivers and RFID tags. However, none of these systems offers the combination of transmission range, speed and volume production available from infrared technology.

With these constraints in mind we have developed a hierarchy of Badges based on mass production IrDA components and domestic appliance microcontrollers.

2.1 Dumb Badge

A Dumb Badge simply transmits its ID number either spontaneously or upon request. Dumb badge technology is available using infrared techniques. Early devices from the Olivetti Oracle Cambridge Research Lab could be classed as Dumb Badges as they only transmitted their identity at regular intervals and included data from push-buttons on the badge.

2.2 Smart Badge

A Smart Badge is a Dumb Badge with a collection of sensors and actuators and reprogramability added. The sensors provide environmental information about the wearer's location. The actuators can send messages to the wearer or control the environment. The reprogramability allows us to implement security features.

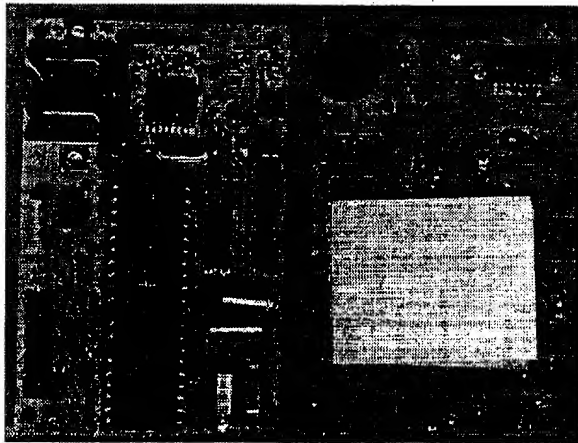


Figure 1 Smart Badge. Back View(processor side) and Front View(Velcro patch for user photograph).

The current prototype is based on a PIC microcontroller and has sensors for light, temperature, humidity, orientation and sound. A piezoelectric transducer acts as an actuator and an 8 bit parallel data I/O path is provided. The combination of 2D orientation sensors and light sensor allow the Smart Badge to act as a mouse or joy-stick for simple positioning

tasks. The I/O port allows the Smart Badge to control its environment. Typically the port would be used to interface to an attached computing device, telephone, or GPS system. It can also be used to control light, doors, air conditioning, heating, ventilation, etc.

The badge uses IrLAP format message framing to be compatible with the emerging IrDA infrastructure. SmartBadge transmits a 30 byte data frame at 9600 baud every 3.3 seconds. The frame is encapsulated in an IrLAP frame to allow easy extensibility, simplifying the construction of Badge Servers to interpret and act upon the received data.

Figure 1 show Photographs of the prototype Smart Badge. The front and rear plastic panels have been removed to show the components. A cosmetic face plate attaches to the front of the badge with Velcro to provide a photo of the wearer, a name, identity number and bar code can also be provided for backward compatibility.

3. Intelligent Badge

The Smart Badge provided the Dumb Badge with a sensors allowing it to discover its physical environment. The Intelligent Badge provides all the features of the Smart Badge with enhanced I/O capability. While it is tempting to think of I/O capability as an LCD screen and a miniature icon based desktop this is not necessarily the best way to extend the badges capabilities. Equally valid extensions use audio, video, animation, and motion to interact with devices and the computing environment.

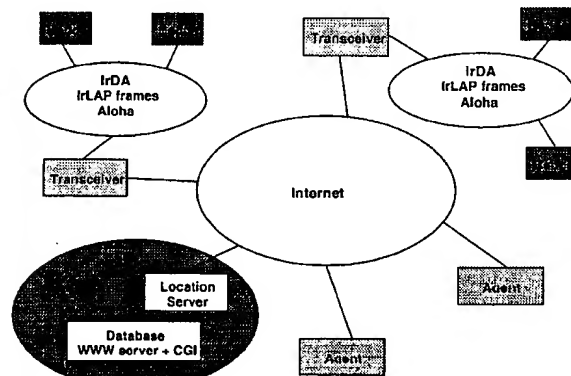


Figure 2 Badge Network Architecture.

The Intelligent Badge aims to be a platform to present a device's user interface to the user in a customisable human-centred way. A simple example is a photocopier, when the user approaches the copier the copier's agent notices the co-location of the wearer and the copier, it then arranges for the copier's user interface to be presented on the wearers Intelligent Badge. The actual format of the interface is determined by the wearer, thus allowing a consistent interface (language, colour, modalities, etc.) to be constructed to all devices. The photocopier's interface could equally well be presented as desktop icons, animated characters, or speech prompts - depending on the badge

user's preferences. An Intelligent Badge acting as an I/O platform allows the wearer to choose the modality and frees the device designer of the need to choose how to present the interface to the user. All the designer needs to do is present the in a structured way to the network using techniques for telecommunications and distributed processing work (e.g., CORBA).

4. Prototype Software and Hardware Architecture

The Badge Network Architecture is shown in Figure 2. Badges send IrDA frames to transceivers. A transceiver acts as a gateway between the Infrared media and the Internet. It parses IrDA frames, breaks out the Badge specific data and forwards it across the Internet in an IP packet to a Location Server for storage and further processing. The Transceiver buffers incoming frames from the Internet destined for Badges until a message is received from the destination Badge. The buffered message is then transmitted to the Badge during its listening window. Buffered frames are timed out if the destination Badge is not sited for a period of time. Program to Badge messaging is performed by multicasting messages to all transceivers near the last known position of the Badge in the hope that one of the transceivers will identify the Badge and forward the message. A security architecture is also needed for the badge to preserve Badge wearers privacy. A discussion of the security architecture can be found in [BEA97c].

5. User Trials

Ten prototype Smart Badges and ten Badge Transceivers have been constructed and are currently in use in an Engineering course on Mobile Computing at KTH. In the course the students are using the Badges to provide a Location and Environment aware mobile infrastructure and then build novel mobile computing application using the infrastructure. Five example applications are being constructed with a fifth application left to the imagination of the student groups. The four example applications are typical of the application of location aware mobile computers.

5.1 Smart Door and Smart Room

A basic use of a SmartBadge and a fixed Badge Transceiver is to provide access to controlled environments by acting like a door lock and a key. A Door Agent program can be constructed that is responsible for the security of a door or group of doors. The Door Agent queries the Location Server database, either through polling or by using call-backs. Once the Door Agent has detected an authorised person at a particular door it sends a message to the door to make it open.

A SmartBadge and a network of fixed Badge Transceivers make it possible to track a persons movements around a building or larger environment. With the ability to track comes the ability to log the location data and analyse it. A Smart Room can be constructed by analysing location data for a room and extracting useful spatial and temporal

correlations from it. The correlations can then be used by a Room Agent to control the workstations, door, lighting and environmental controls. The Room Agent could:

Turn on the overall room lights and adjusting the room temperature just before the first occupant arrives for the day.

Turn off the lighting, turning down the temperature and shutting down and turning off all computers just after the last occupant has gone for the day.

Turn task lighting off and on as occupants move during the day enabling screen-lock and monitor power-down when a computer workstation user moves away from the workstation for a prolonged period (e.g. lunch).

Adjusting the room environment so that all the occupants are as close to 20 degrees and 70% humidity as possible.

Report room energy trends to a Building Agent which can then optimise the building energy usage and report building patterns to the Power Company to help them optimise their production.

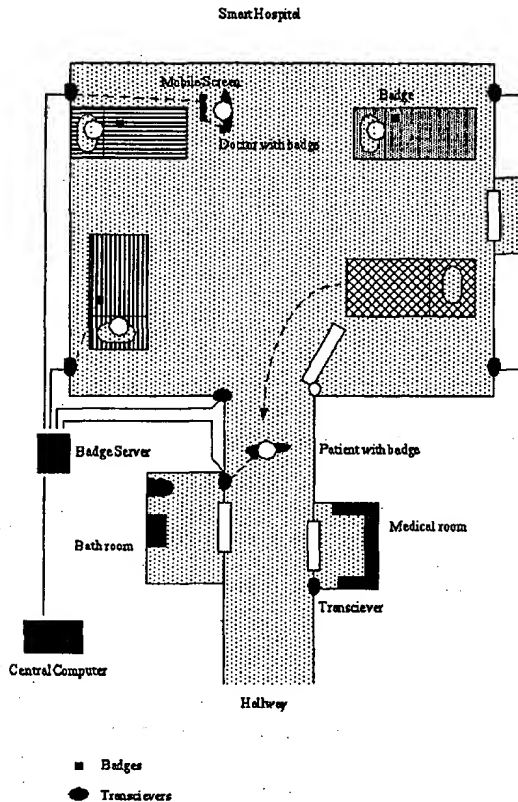
Two extension to the Smart Room and Smart Door scenarios were developed by a student groups, Date IT is a location augmented dating service, Smart Hospital is a Badge augmented medical environment.

Date IT [BJE97] is a computer match-making system with location aware augmentation. The service itself provides mutual matching of members wearing badges, using a shared database and a transceiver infrastructure. A meeting between matching customers results in a signal to both badges, making them beep. The service is designed to be deployed under license in clubs and bars which also provide and information station to fill in the personal profile needed by the service. The information station (and WWW based database) can point the customer to bars and clubs with a high number of potential matches and can also be used to point out the location of potential matches within a room.

Smart Hospital [LAR97] (Figure 3) aims to improve information flows in hospitals. The system is based on displayed on a pen sensitive screen that works as an access point between the doctor, the patient and a central computer. The central computer stores hospital records and provides authentication and access control services. Patients are equipped with badges that report their current location to the system, have a panic button to summon help, and monitor biometric information like temperature, respiration and heart rate. The badges also provide access to smart doors to prevent patients (and staff) from entering restricted areas. The scheme can also be used to track the spread of infection or contamination by recording where people went, who they met and who else was near by. An example of the systems use would be for an accident patient needing an X-Ray diagnosis. When the patient is admitted they are equipped with a badge. As the patient moves through the hospital each person that sees them and each procedure that is performed generates data in the central computer. The system allows the patients identity to be recorded along with

the procedure results. When a doctor visits the patient in a ward the patients records are immediately available on the doctors hand-held screen. The system not only improves patient care but also improves hospital record keeping and streamlines the billing and disbursement process.

A simple extension, discussed in the City Guide system below, is to provide the badge with navigational capability so staff and patients can find their way in a large hospital.



Picture 1. Smart Hospital

Figure 3 Smart Hospital Scenario

5.2 Diary Agent

An alternative analysis of SmartBadge data involves finding correlations between people rather than between people and machines. A Diary Agent could:

Record all the places the SmartBadge wearer went during the day, how long was spent at the location and who else was at the same location the same time (perhaps this indicates a meeting).

Assuming that a SmartBadge wearer accesses computer files on a single network file system from wherever they happen to be at any particular time during the day, the diary can be augmented with details of the files that were accessed and modified by the wearer during the day.

If the SmartBadge wearer has an online diary file containing their appointments the Diary Agent should correlate the appointment information for badge wearers with the actual

meetings that took place and highlight the missed meetings that need to be rescheduled.

If a meeting (co-location of two wearers) takes place within range of a Badge equipped computer workstation that has a sound (video) input capability then the Diary Agent should be able to record the meeting and add the recording to the diary as a meeting record.

If the Diary Agent has access to PABX call records then they can be included in the diary along with the A party and B party numbers. The diary then contains a record of telephone contacts along with details of where the wearer was when the call occurred. If both parties were wearers then both locations could be recorded.

The Intelligent Fitness Centre, a variation on the diary agent, was devised by one of the student groups. Fitness centre patrons are equipped with a SmartBadge in a wrist-watch form factor. These badges identify the patrons to the fitness centre and to its equipment which has Badge receivers attached and is connected through a local area network. When a patron uses a piece of exercise equipment their exercise profile is loaded into the machine allowing a fully tailored exercise program to be developed for each patron. The system also automates record keeping so performance measurements from the exercise machine can be logged to the patrons database for later analysis. The Badge is also used as an authentication device to bill patrons for their time at the fitness centre and even to control the type music played over the P.A. to match the tastes of the centre's current occupants. A simple extension to the system would integrate biometric sensors on the badge with the Fitness Centres monitoring equipment to provide records of pulse rate and respiration rates that would allow exercise physiologists to better tailor exercise programs to customers performance level and to ensure clients did not over-exert themselves.

5.3 Super Flexible Ubiquitous Monitor

A SmartBadge contains a host of sensors to monitor the wearers environment and provide a limited form of user interaction with the environment. Lancaster University developed a system called the FLExible Ubiquitous Monitor (FLUMP). The monitor can detect who is standing in front of it using Olivetti Active Badge technology and display a page of hypertext based on the persons identity. Unfortunately the only form of interaction with the display was to stand in front of it for a prolonged period which caused FLUMP to cycle through the persons display pages. The sensors included on the SmartBadge allow a Super FLUMP to be created with user interaction provided by the tilt (roll and pitch) information along with the light level information allowing a user to scroll through their information pages laid out in a one or two dimensional space and follow hyperlinks.

After constructing a Super FLUMP the system was extended by students to create Sm@rt Guide and City Guide.

City Guide, is meant to be used by tourist visiting a city or by residents as a replacement for a street map. It can also potentially be used as an electronic entry ticket. The City Guide uses IntelligentBadge like devices incorporating a direction display and a GPS receiver. The system is coupled to Info Stations spread about the city. A customer selects a destination of interest (or a series of them) from an Info Station and the City Guide then navigates the customer through the city to the selected destinations using GPS information. All information and prompts can be displayed in the customers own language. Figure 4 shows mock-ups of the City guide and Info Station displays.

The Sm@rt Guide simplifies the system for use in Exhibition Spaces. In Sm@rt Guide a DumbBadge is used and the direction display is placed in the environment by using a network of Electronic Direction Signs (EDS) like smart street signs. Sm@rt Guide allows customers to be routed around temporary congestion in the Exhibition Space because the path is not pre-loaded into the badge at the Info Station.

The two systems can be easily combined to provide intelligent traffic routing in the City Guide scenario by placing EDS' in the environment (for example at already networked sites like traffic lights and public telephone booths) and then using GPS to navigate between EDS. Each EDS then has the opportunity to upload a new route to the City Guide badge as it passes to avoid short term congestion. It should be noted that the system can be used equally well by pedestrians and motorists.

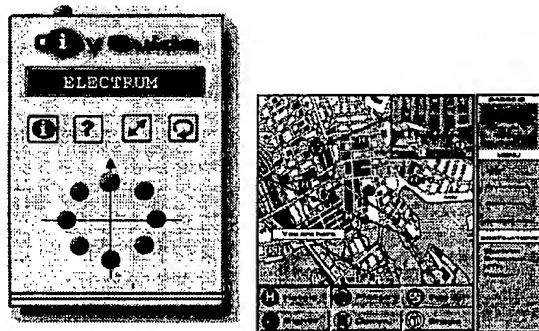


Figure 4 City Guide and Info Station

6. Conclusions

This paper has described a SmartBadge that couples an active wearable computer based identification system to a collection of environment sensors. We are using the badge to conduct experiments aimed at producing more human centred computing and communication systems. A trial version of the SmartBadge and its infrastructure has been used by a group of 50 students to prototype innovative location and environment enabled mobile computing applications. Though significant research remains to be performed on the Badge form-factor and the programming techniques needed to realise the large-scale distributed systems typical of the prototype applications, we believe

that the application scenarios show that location aware mobile computing can significantly improvements in human centred information environments.

7. Bibliography

- [BEA96a] H.W.P. Beadle and R. Gonzalez, Video Coding Based Mobile Multimedia Terminal, Proc. Picture Coding Symposium, Melbourne, 1996, pp. 509-514., available as: <http://www.elec.uow.edu.au/people/staff/beadle/badge/pcs/pcsv6.htm>
- [BEA97a] H.W.P. Beadle, B. Harper, G. Q. Maguire Jr. and J. Judge, "Location Aware Mobile Computing", Proc. IEEE/IEE International Conference on Telecommunications, (ICT'97), Melbourne, April 1997, to appear., available as: <http://www.elec.uow.edu.au/people/staff/beadle/badge/ICT97/ict97.htm>
- [BEA97b] Beadle, H.W.P., Maguire Jr., G.Q., Smith, M.T., Environment Aware Computing and Communication Systems, Proc. International Symposium on Wearable Computers, Cambridge, Massachusetts, October 1997, Submitted.
- [BEA97c] Beadle, H.W.P., Maguire Jr., G.Q., Smith, M.T., Smart Badge: It beeps, It flashes, It knows when you are hot and sweaty, Proc. International Symposium on Wearable Computers, Cambridge, Massachusetts, October 1997, Submitted.
- [DAT] Dataman, Location-dependent Information Browsing, <http://athos.rutgers.edu/dataman/> and <ftp://athos.rutgers.edu/pub/acharya/mosaic.ps.Z>
- [DMTF] Desktop Management Task Force, available as: <http://www.dmtf.org/>
- [INF] InfoPad, <http://infopad.EECS.Berkeley.EDU/>
- [IRDA] Infrared Data Association home page, <http://www.irda.org/>
- [LAC] Location Aware Computer Systems, http://www.elec.uow.edu.au/people/staff/beadle/badge/location_aware.htm
- [MED] MEDIA, <http://hallen.ele.kth.se/~taw/>
- [MEMS] U.S. DARPA Microelectromechanical Systems (MEMS) development program., <http://mems.isi.edu/>
- [NETBEA] HP NetBeamIR J2964A (IrDA to Ethernet access point), <http://www.hp.com:80/rnd/products/nbeamir/nbeamir.htm>.
- [ORL] Olivetti Oracle Cambridge Research Laboratory, Active Badge Home Page, <http://www.orl.co.uk/cgi-bin/ab>
- [OTM] OnTheMove, <http://www.sics.se/~onthemove/>
- [TTB] Things That Blink, <http://www.almaden.ibm.com/journal/sj/mit/sectionc/borovoy.html>
- [UBI] Xerox PARC Ubiquitous Computing Home Page, <http://sandbox.parc.xerox.com/ubicomp/>
- [WAL] Walkstation, <http://www.electrum.kth.se/labs/ccs/WS/ws.html>
- [BJE97] Karin Bjerregaard, Anette Bohman, Mattias Holmlund, Peter Söderberg, August Söderlind, Erik Ygberg, Date IT, http://www.it.kth.se/~i94_bjn/Dateit/report/
- [MED97] Niclas Medman, Pablo Valiente, Stefan Sjöquist, Christian Jansson, Stefan Backström, Marco Basile, Intelligent Fitness Centre, http://www.e.kth.se/~e92_chj/mobreport/
- [LAR97] Jonas Larsson, Joakim Forsberg, Andreas Suurkuusk, David Ågren, Thomas Edwall, Ramin-Kabiri Rad Monfared, Tomas Bie, Smart Hospital, http://www.it.kth.se/~i94_bis/i.html
- [Käm97] Jonas Kämpe, Patric Lindström, Poules Raihana, Mahmoud Rahmani, Jonny Svärting, City Guide, <http://www.it.kth.se/~d93-jsv/mpc/mpc.html>

DOCUMENT RETRIEVAL REQUEST FORM

Requester's Name: **Fred Ehichioya** Case Serial Number: Art Unit/Org.: **2172**

Phone: **305-8039** Fax: Building: **PK2** Room Number: **4D43**

Date of Request: **11/20/03** Date Needed By:

Paste or add text of citation or bibliography: **Paste Citation** Only one request per form. Original copy only. ☐

Author/Editor:

Book Title:

Article Title:

Volume Number: Report Number: Pages:

ISBN Number: Series Number: Year of Publication:

Publisher:

Remarks: **(126)**

Library Action	PTO		LC		NAL		NIH		NLM		NIST		Other	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Local Attempts	X													
Date	11/20													
Initials	nd													
Results	Comp													
Examiner Called														
Page Count														
Money Spent														

		Source		Date
<u>Remarks/Comments</u> 1st and 2nd denotes time taken to a library O/N – Under NLM means Overnight	Ordered From:			
	Comments:			

9/5/27 (Item 11 from file: 2)

IALOG(R) File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

4887461

Title: Keeping intruders out (high security access control)

Journal: Banking World vol.13, no.2 p.18-19

Publication Date: Feb. 1995 Country of Publication: UK

CODEN: BAWOEX ISSN: 0737-6413

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: Banks and other institutions seeking to ensure that only **authorised** personnel obtain entry to high **security** premises are now exploring contactless chip technology. The principle is straightforward. The **chip** (on a keyring, **badge** or card) carries a small radio frequency "**transponder**"; when the **transponder** is interrogated by a terminal at the entrance to the building it transmits the appropriate encoded data to establish the entrant's identity. **Radiofrequency** identification (**RF**-ID) technology is usually supplied in the form of "tags" (or "badges") worn by employees. Financial institutions seeking to control **access** to high **security** premises-typically computer installations-may find it rewarding to go far afield for the contactless technology they are seeking. Tag technology is now being incorporated by several suppliers into cards which have the dimensions of a standard bank or credit card; such a card can carry more information than just the tag; this extra information can include the employee's name (printed in clear) and a photograph. Contactless chip technology is just the latest in a line of electronic devices used to provide **access** control. The different technologies on offer vary considerably in cost; the decision on which **system** to adopt is by no means an easy one. (0 Refs)

Subfile: D

Descriptors: **access** control; banking

Identifiers: high **security** **access** control devices; intruders; high **security** premises; **security** devices; contactless chip technology; radio frequency **transponder**; encoded data; **radiofrequency** identification technology; tags; badge; proximity terminals; financial institutions; computer installations; Westinghouse **Security** Electronics; multi-technology **RF**-ID cards; QuadraKey card; magnetic stripe; photo ID; bar code; reading range; cost

Class Codes: D1060 (Security); D3035 (Monitoring and alarm systems); D2050E (Banking)

Copyright 1995, IEE

[« Back to Article View](#)Databases selected: Multiple databases...

Keeping intruders out

Anonymous. **Banking World.** London: Feb 1995. Vol. 13, Iss. 2; pg. 18, 2 pgs

Subjects: Technological change, Security systems, Banking industry, Access control

Classification Codes 9175, 8100, 5140

Locations: UK

Author(s): Anonymous

Publication title: Banking World. London: Feb 1995. Vol. 13, Iss. 2; pg. 18, 2 pgs

Source Type: Periodical

ISSN/ISBN: 07376413

ProQuest document ID: 7299052

Text Word Count 1117

Article URL: http://gateway.proquest.com/openurl?ctx_ver=z39.88-2003&res_id=xri:pqd&rft_val_fmt=ori:fmt:kev:mtx:journal&genre=article&rft_id=xri:pqd:did=000000007299052&svc_dat=xri:pqil:fmt=txt&req_dat=xri:pqil:pq_clntid=19649

Abstract (Article Summary)

Banks are exploring contactless chip technology to ensure that only authorized personnel gain entry to high-security premises. Radio frequency identification technology is usually supplied in the form of tags or badges worn by employees. Tag technology is now being incorporated by several suppliers into cards that have the dimensions of a standard bank or credit card. Contactless chip technology is just the latest in a line of electronic devices used to provide access control. At the lower end of the cost scale is the magnetic stripe card. Probably the most expensive means of access control is a system based on the smart card, with its built-in microprocessor.

Full Text (1117 words)

Copyright Headway, Home and Law Publishing Group Limited Feb 1995

BANKS AND OTHER institutions seeking to ensure that only authorised personnel obtain entry to high security premises are now exploring contactless chip technology. The principle is straightforward. The chip (on a keyring, badge or card) carries a small radio frequency "transponder"; when the transponder is interrogated by a terminal at the entrance to the building it transmits the appropriate encoded data to establish the entrant's identity.

Radio frequency identification (RF-ID) technology is usually supplied in the form of "tags" (or "badges") worn by employees. The "proximity" tag can be read at a distance of four to 12 inches between tag and reader, the "hands-free" tag at a distance of up to three feet. Such systems have two big advantages. The readers can be sited to provide minimum interference with the flow of personnel (indeed the proximity terminals can be out-of-sight) and usage places no physical stress on the card.

Financial institutions seeking to control access to high security premises -- typically computer installations -- may find it rewarding to go far afield for the contactless technology they are seeking. Texas Instruments, for instance, has recently installed its TIRIS radio frequency technology in a 24-hour emergency (police, fire, ambulance) centre at Fort Worth, Texas. Employees are issued with badges carrying transponders; these badges are read by remote terminals at the entry doors. The system serves two purposes. First, it ensures that only those who are entitled to be on the premises will gain access. Second, the terminals at the entrances collect data on who is in the building and transmit this information to a central computer.

Tag technology is now being incorporated by several suppliers into cards which have the dimensions of a standard bank or credit card; such a card can carry more information than just the tag; this extra information can include the employee's name (printed in clear) and a photograph.

Westinghouse Security Electronics, for instance, has recently launched a line of multi-technology RF-ID cards; the QuadraKey card can carry RF-ID, magnetic stripe, photo ID and bar code on a single card, with a maximum reading range of three feet.

Contactless chip technology is just the latest in a line of electronic devices used to provide access control. The different technologies on offer vary considerably in cost; the decision on which system to adopt is by no means an easy one.

At the lower end of the cost scale is the magnetic stripe card, which suffers from one defect: the coding can be copied. This problem is being addressed by Thorn Secure Science International, through its Watermark Magnetics technology. This introduces a unique identifier into every length of magnetic tape that is put on a card. The identifier will be read at the terminal, to ensure that only genuine cards can be used to gain entry. Fresh data can still be entered on the cards as and when required.

Another solution is offered by the Wiegand card (supplied through licensees). This type of card uses special embedded magnetic wires, instead of tape; these wires create a pattern which is individually coded for each card. When the card is passed through the reader's magnetic field, small electrical pulses are generated which can then be decoded to represent the card's identity. Security here is very high, because the cards are "hard-wired" and virtually impossible to reproduce. One drawback, however, is that the basic Wiegand card is not easily integrated with other card systems which the company may have installed, for canteens and so on. To meet this problem, Wiegand cards are now being offered with a magnetic stripe.

Probably the most expensive means of access control is a system based on the smart card, with its in-built microprocessor. This type of card can carry large amounts of data and can be used for a variety of purposes -- typically providing a means of entrance to the car park and holding a record of the employee's attendance. The smart card can also serve as a payment card, pre-loaded with value, which can be used at the company's canteens and other facilities.

Smart cards are virtually impossible for the unauthorised to duplicate or re-program; and used with an identification device (ID), they will verify that the person presenting the card is the rightful cardholder.

The most common form of ID is the PIN; but even PINs are sometimes divulged to unauthorised people. To overcome this problem, biometric systems of ID are being introduced. These systems employ terminals which scrutinise a particular personal characteristic when the cardholder presents the card; they then compare this characteristic with a master copy (held on file), which was obtained when the card was originally issued. Such technologies as voice recognition, hand geometry, fingerprints, hand vein checks, retinal eye-scanning and dynamic signature verification are at various stages of development. The idea behind all these systems is that, unlike a PIN, a personal characteristic cannot be presented for identification by anyone except the rightful cardholder.

A very different problem which financial institutions have to face is that of protecting staff from attackers who may enter or even be lying in wait on the premises. The IRIS (Intelligent Radio Information System) is used by NatWest, for instance, as a communication system for employees under attack. The supplier of IRIS, Herne Bay-based EMS Bank Intruder and Fire Systems, has now launched the SAFE? (Status:All-clear for Entry?) system as a complementary security module. SAFE? enables hidden intruder detectors to be connected to the IRIS controller, via radio transmitters or hard-wiring. If these detectors are activated they are logged by the controller, but the activation does not result in any overt alarm. The IRIS controller can be interrogated from up to 250 metres away by means of the SAFE? check unit, a radio transmitter and text message pager. Within five seconds, the pager will receive a "System Clear" message -- or it will display, in order, alarm activations which have been logged, indicating when and where the intrusion took place.

Branch security

Banks and building societies continue to search for effective means to provide security for staff (and of course cash) and for sensitive information.

Staff and cash can be protected by anti-ballistic rising screens. Leasing supplier, Safetell, says that 1,500 screens have been installed in UK branches. These screens foil raids by rising in a fraction of a second, cutting off access to cash and usually forcing the bandit to seek an escape route.

Information displayed on computer screens can be protected from unauthorised eyes by privacy filters. Incoms Systems tells us that the company's Spectrum Secure-View filter not only acts as an anti-glare and anti-static device, but also allows only the operator to see what is on the screen.

Copyright © 2003 ProQuest Information and Learning Company. All rights reserved. [Terms and Conditions](#)

[Text-only interface](#)

From: ProQuest

Set	Items	Description
S1	1	AU=(JAM M? OR JAM M?)
File 35:		Dissertation Abs Online 1861-2003/Oct (c) 2003 ProQuest Info&Learning
File 65:		Inside Conferences 1993-2003/Nov W3 (c) 2003 BLDSC all rts. reserv.
File 434:		SciSearch(R) Cited Ref Sci 1974-1989/Dec (c) 1998 Inst for Sci Info
File 2:		INSPEC 1969-2003/Nov W2 (c) 2003 Institution of Electrical Engineers
File 8:		Ei Compendex(R) 1970-2003/Nov W2 (c) 2003 Elsevier Eng. Info. Inc.
File 148:		Gale Group Trade & Industry DB 1976-2003/Nov 20 (c)2003 The Gale Group
File 160:		Gale Group PROMT(R) 1972-1989 (c) 1999 The Gale Group
File 16:		Gale Group PROMT(R) 1990-2003/Nov 19 (c) 2003 The Gale Group
File 111:		TGG Natl.Newspaper Index(SM) 1979-2003/Nov 17 (c) 2003 The Gale Group
File 369:		New Scientist 1994-2003/Nov W2 (c) 2003 Reed Business Information Ltd.

Set	Items	Description
S1	3294	BADGE? OR RFID? ? OR BUTTON? OR FOB OR FOBS OR TOKEN? OR I-DCARD? OR (ID OR IDENTIFICATION) () (CARD? OR PIN OR PINS) OR -IDS
S2	93	S1(3N) (SMART? OR INTELLIGENT? OR CHIP? OR IC OR INTEGRATED-()CIRCUIT? OR TRANSPONDER?)
S3	4627	WIRELESS? OR RF OR RADIOFREQ? OR IR OR INFRARED? OR WIFI -OR WAP OR BLUETOOTH? OR CELLULAR?
S4	48509	ACCESS? OR CLEARANCE? OR PERMISSION? OR PERMIT? OR ALLOW?
S5	2483	(MULTIPL? OR SEVERAL OR VARIOUS OR VARIETY OR MANY OR PLURAL?) (3N) (LEVEL? OR TIER? OR TYPE?) OR MULTILEVEL? OR MULTILAYER?
S6	86437	NETWORK? OR SYSTEM? OR LAN? OR DATABASE? OR DATA() (BASE? OR BANK?) OR DATABANK? OR WEBSITE? OR WEBPAGE? OR WEB() (SITE? OR PAGE?) OR INTRANET?
S7	718	BEACON? OR TRANSMITTER? OR TRANSPONDER? OR ANTENNA? OR RECEIVER?
S8	0	S2 AND S3 AND S4 AND S5
S9	4	S2 AND S3 AND S7
S10	0	S9 AND S5
S11	3	S9 AND S6
S12	12	S2 AND S3 AND S4
S13	0	S2 AND S4(2N)S5
S14	0	S2 AND S4 AND S5 AND S7
S15	13	S9 OR S11 OR S12
S16	6	S15 NOT PY>2001
S17	5	S16 NOT PD>20010417

File 256:SoftBase:Reviews,Companies&Prods. 82-2003/Oct
(c)2003 Info.Sources Inc

17/3,K/1

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.
(c)2003 Info.Sources Inc. All rts. reserv.

02322831 DOCUMENT TYPE: Company

Texas Instruments Inc (322831)

12500 TI Blvd
Dallas, TX 75266-4136 United States
TOLL FREE TELEPHONE NUMBER: (800) 336-5236
HOMEPAGE: <http://www.TI.com>

RECORD TYPE: Directory

CONTACT: Sales Department

ORGANIZATION TYPE: Corporation
EQUITY TYPE: Public
STATUS: Active

NUMBER OF EMPLOYEES: 34,500
SALES: 1,600,000,000

PERSONNEL: Engibous, Tom, Chief Executive Officer; Engibous, Tom,
Chairperson; Aylesworth, Bill, VP; Aylesworth, Bill, Chief Financial
Officer; Templeton, Rich, Chief Operating Officer; Leven, Steve, VP;
Hubach, Joe, VP; Ritter, Phil, VP; West, Terri, VP

REVISION DATE: 20030511

...silicon transistors. Texas Instruments continued its pattern of
innovation, later introducing specialized semiconductors, quantum effect
transmitters, GA components, **infrared** weapons **systems**, **RFID**
equipment, video RAM **chips**, the single-chip DSP, and high-bandwidth
platforms. The company's software offerings include real...

17/3,K/2

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.
(c)2003 Info.Sources Inc. All rts. reserv.

01164224 DOCUMENT TYPE: Product

PRODUCT NAME: Software Developer's Kit (164224)

RF IDEas Inc (645877
290 Lexington Dr
Buffalo Grove, IL 60089 United States
TELEPHONE: (847) 870-1723

RECORD TYPE: Directory

CONTACT: Sales Department

REVISION DATE: 20030630

RF IDEas Inc...

RF IDEas' Software Developer's Kit **allows** developers to add proximity
card and other radio frequency identification (RFID) features to
applications. The...

...The programming kit also offers developers C++ and Visual Basic samples.
Software Developer's Kit **allows** users to create asset tracking, security,
vending, and human resource kiosk applications.

DESCRIPTORS: Building Security; Computer Security; Program Development;
RFID ; Smart Cards

17/3,K/3

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.
(c)2003 Info.Sources Inc. All rts. reserv.

01157601 DOCUMENT TYPE: Product

PRODUCT NAME: PowerID Standard & Plus (157601)

Power Paper Ltd (739367)
PO Box 12
Einat 49910, Israel
TELEPHONE: () 972-39007500

RECORD TYPE: Directory

CONTACT: Sales Department

REVISION DATE: 20030817

...Paper's PowerID (TM), offered in Standard and Plus editions, is a radio frequency identification (**RFID**) **smart** label system that **allows** organizations to streamline supply chain operations. The product offers **access** to a wide range of asset information. PowerID includes long-range communications, data processing, storage...

...the product works with existing passive label reader systems. PowerID Plus employs an active micro- **RF** transceiver, providing organizations with real-time inventory and alert features. It also includes bi-directional...

DESCRIPTORS: AutoID; Equipment Management; Inventory; Labels; Location Awareness; Manufacturing; RFID; **Wireless** Networks

17/3,K/4

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.
(c)2003 Info.Sources Inc. All rts. reserv.

01089401 DOCUMENT TYPE: Product

PRODUCT NAME: SafeWord PremierAccess (089401)

Secure Computing Corp (586374)
4810 Harwood Rd
San Jose, CA 95124-5206 United States
TELEPHONE: (408) 979-6100

RECORD TYPE: Directory

CONTACT: Sales Department

REVISION DATE: 20020630

...PremierAccess (TM) provides users with control over Web, virtual private network (VPN), and network application **access** . SafeWord PremierAccess encompasses user self-enrollment, integrated authentication, public key infrastructure (PKI), role-based authorization...

...features. It also includes single sign-on, session management, and customization features. Users can integrate **access** control for Web, VPN, Citrix, Windows, remote dialup, UNIX, SSH, Oracle, Novell, and other applications...

...support for CheckPoint, Cisco, Alcatel, Nortel, Microsoft, and other VPNs. The system also supports passwords, **tokens** , digital certificates, **smart** cards and **wireless** and biometrics devices. SafeWord PremierAccess can broker to external directories and RADIUS remote **access** systems, extending users' **access** control options.

17/3,K/5

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.
(c)2003 Info.Sources Inc. All rts. reserv.

00123173 DOCUMENT TYPE: Review

PRODUCT NAMES: Linux (833916)

TITLE: Nanosize OS slims Linux for Wearable Computers

AUTHOR: Johnson, R Colin

SOURCE: Electronic Engineering Times, v1101 p67(2) Feb 21, 2000

ISSN: 0192-1541

HOME PAGE: <http://www.eet.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

REVISION DATE: 20020228

...on the slimmed-down Linux-like OS for release next year.' Nanux will use the **Wireless** Application Protocol (**WAP**), and InfoCharms has already demonstrated prototypes of designs using 'open standards' for lower-cost inexpensive development. InfoCharms' first product, a wearable **Smart Badge** for conference attendees, does not support Nanux. The device can communicate with other **Smart Badges** to share e-business cards or show social compatibilities, such as shared hobby, among badge wearers. A secret only the wearer can understand enables communication among the **Smart Badges** . A spokesperson for InfoCharms says, 'We **allow** you to program your own code for what your badge does when it perceives an...

...badge's memory is full or the wearer is ready to end participation, a kiosk **permits** the user to send information in the badge's accumulated e-business cards and related...

DESCRIPTORS: Electronics; Embedded Systems; Handhelds & Palmtops; IBM PC & Compatibles; Linux; Mobile Computing; Operating Systems; **WAP** ;
Wireless Network

Set	Items	Description
S1	910399	BADGE? OR RFID? ? OR BUTTON? OR FOB OR FOBS OR TOKEN? OR I-DCARD? OR (ID OR IDENTIFICATION) () (CARD? OR PIN OR PINS) OR -IDS
S2	16851	S1(3N) (SMART? OR INTELLIGENT? OR CHIP? OR IC OR INTEGRATED-()CIRCUIT? OR TRANSPONDER?)
S3	2528518	WIRELESS? OR RF OR RADIOFREQ? OR IR OR INFRARED? OR WIFI -OR WAP OR BLUETOOTH? OR CELLULAR?
S4	14095331	ACCESS? OR CLEARANCE? OR PERMISSION? OR PERMIT? OR ALLOW?
S5	641744	(MULTIPL? OR SEVERAL OR VARIOUS OR VARIETY OR MANY OR PLURAL?) (3N) (LEVEL? OR TIER? OR TYPE?) OR MULTILEVEL? OR MULTILAYER?
S6	1010285	S4(3N) (LAN? ? OR NETWORK? OR INTRANET? OR BUILDING? OR COMPOUND? OR CAMPUS? ? OR DATABASE? OR DATABANK? OR DATA() (BASE? OR BANK?) OR INTRANET?)
S7	1055	S2(S)S4(S)S6
S8	20	S5(S)S7
S9	52	S3(S)S7
S10	0	S2(10N)S3(10N)S4(10N) (PERSONNEL? OR INDIVIDUAL? OR SECURIT? RO EMPLOYEE?)
S11	72	S8 OR S9 OR S10
S12	45	RD (unique items)
S13	23	S12 NOT PY>2001
S14	18	S13 NOT PD>20010417
File	275:	Gale Group Computer DB(TM) 1983-2003/Nov 19 (c) 2003 The Gale Group
File	47:	Gale Group Magazine DB(TM) 1959-2003/Nov 19 (c) 2003 The Gale group
File	75:	TGG Management Contents(R) 86-2003/Nov W2 (c) 2003 The Gale Group
File	636:	Gale Group Newsletter DB(TM) 1987-2003/Nov 19 (c) 2003 The Gale Group
File	16:	Gale Group PROMT(R) 1990-2003/Nov 19 (c) 2003 The Gale Group
File	624:	McGraw-Hill Publications 1985-2003/Nov 19 (c) 2003 McGraw-Hill Co. Inc
File	484:	Periodical Abs Plustext 1986-2003/Nov W3 (c) 2003 ProQuest
File	613:	PR Newswire 1999-2003/Nov 20 (c) 2003 PR Newswire Association Inc
File	813:	PR Newswire 1987-1999/Apr 30 (c) 1999 PR Newswire Association Inc
File	141:	Readers Guide 1983-2003/Oct (c) 2003 The HW Wilson Co
File	696:	DIALOG Telecom. Newsletters 1995-2003/Nov 19 (c) 2003 The Dialog Corp.
File	553:	Wilson Bus. Abs. FullText 1982-2003/Oct (c) 2003 The HW Wilson Co
File	621:	Gale Group New Prod.Annou.(R) 1985-2003/Nov 20 (c) 2003 The Gale Group
File	674:	Computer News Fulltext 1989-2003/Nov W2 (c) 2003 IDG Communications
File	88:	Gale Group Business A.R.T.S. 1976-2003/Nov 18 (c) 2003 The Gale Group
File	369:	New Scientist 1994-2003/Nov W2 (c) 2003 Reed Business Information Ltd.
File	160:	Gale Group PROMT(R) 1972-1989 (c) 1999 The Gale Group
File	635:	Business Dateline(R) 1985-2003/Nov 20 (c) 2003 ProQuest Info&Learning
File	15:	ABI/Inform(R) 1971-2003/Nov 20 (c) 2003 ProQuest Info&Learning
File	9:	Business & Industry(R) Jul/1994-2003/Nov 19 (c) 2003 Resp. DB Svcs.
File	13:	BAMP 2003/Nov W2 (c) 2003 Resp. DB Svcs.
File	810:	Business Wire 1986-1999/Feb 28 (c) 1999 Business Wire

File 610:Business Wire 1999-2003/Nov 20
 (c) 2003 Business Wire.
File 647:CMP Computer Fulltext 1988-2003/Nov W3
 (c) 2003 CMP Media, LLC
File 98:General Sci Abs/Full-Text 1984-2003/Oct
 (c) 2003 The HW Wilson Co.
File 148:Gale Group Trade & Industry DB 1976-2003/Nov 20
 (c)2003 The Gale Group
File 634:San Jose Mercury Jun 1985-2003/Nov 19
 (c) 2003 San Jose Mercury News

14/3,K/4 (Item 1 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2003 The Gale Group. All rts. reserv.

04949932 Supplier Number: 72692202 (USE FORMAT 7 FOR FULLTEXT)
Philips Semiconductors unlocks the key to embedded secure technology.
M2 Presswire, pNA
April 3, 2001
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 570

... secure applications in advanced embedded solutions such as
integrated circuits (ICs) for broadband wired and **wireless** networks,
virtual private networks, smart cards, radio frequency identification (
RFID), and **smart** card readers. The resulting silicon solutions will
improve security transactions in applications such as secure **network**
access , m/e/

14/3,K/7 (Item 3 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

06922887 Supplier Number: 58526877 (USE FORMAT 7 FOR FULLTEXT)
**Hands-Free Network Security Management with VicinID Enterprise 2.0 from
First Access.**
Business Wire, p0310
Jan 11, 2000
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 1150

... to solve password problems, Information Systems decision-makers are evaluating new user credential solutions... First **Access** offers a secure **wireless** credential that can reduce the help-desk burden, is convenient for users, and delivers continuous...

...and virtual private networks (VPNs) provide both trusted employees and e-business partners with ready **access** to the internal **network** .

About First **Access** , Ltd.

First Access is the award-winning provider of Practical Security solutions and founder of...

14/3,K/9 (Item 1 from file: 674)
DIALOG(R)File 674:Computer News Fulltext
(c) 2003 IDG Communications. All rts. reserv.

083401

Novell ships multiple-level security authentication

Byline: Deni Connor

Journal: Network World

Publication Date: April 17, 2000

Word Count: 234 Line Count: 23

Text:

... is expected to ship its Modular Authentication Service this week. NMAS lets network managers establish **multiple levels** of security into the network, through a combination of password authentication, digital certificates, **tokens**, **smart** cards or biometric devices. Currently, Novell's login process has two phases. Users enter passwords...

...algorithm. The user is then authenticated to a Novell Directory Services server before being granted **access**. NMAS expands the authentication from a "something you know" (password) scheme to a combination of...

... you know" (password), "something you are" (retinal scan or fingerprint identification), or "something you have" (**token** or **smart** card). For instance, with NMAS, users might have to enter only a password to **access** their daily work on the **network**. To **access** more sensitive data, they might need to use a smart card or even a biometric device after entering their password. In addition with NMAS, the **network** manager can control **access** to the file and directory level. Novell is one of the first vendors to **allow multiple levels** of authentication. Microsoft presently provides all the mechanisms Novell does, such as biometrics, but limits...

Set	Items	Description
S1	382774	BADGE? OR RFID? ? OR BUTTON? OR PIN OR PINS OR FOB OR FOBS OR TOKEN? OR ID OR IDCARD? OR IDENTIFICATION()CARD? OR IDS
S2	12302	S1(3N) (SMART? OR INTELLIGENT? OR CHIP? OR IC OR INTEGRATED- ()CIRCUIT? OR TRANSPONDER?)
S3	320092	WIRELESS? OR RF OR RADIOFREQ? OR IR OR INFRARED? OR WIFI - OR WAP OR BLUETOOTH? OR CELLULAR?
S4	986342	ACCESS? OR CLEARANCE? OR PERMISSION? OR PERMIT? OR ALLOW?
S5	242303	(MULTIPL? OR SEVERAL OR VARIOUS OR VARIETY OR MANY OR PLUR- AL?) (3N) (LEVEL? OR TIER? OR TYPE?) OR MULTILEVEL? OR MULTILAY- ER?
S6	1100637	NETWORK? OR SYSTEM? OR LAN? OR DATABASE? OR DATA() (BASE? OR BANK?) OR DATABANK? OR WEBSITE? OR WEBPAGE? OR WEB() (SITE? OR PAGE?) OR INTRANET?
S7	162146	BEACON? OR TRANSMITTER? OR TRANSPONDER? OR ANTENNA? OR REC- EIVER?
S8	73	S2(S)S3(S)S4(S)S5
S9	369	S2(S)S3(S)S7
S10	16	S9(S)S5
S11	159	S9(S)S6
S12	297	S2(S)S3(S)S4
S13	40	S2(S)S4(2N)S5
S14	508	S2(5N)S4
S15	2742	S5(10N)S7
S16	2	S14(S)S15
S17	171	S2(5N)S3(5N)S7
S18	1	S2(10N)S3(10N)S4(10N)S5
S19	223	S10 OR S13 OR S16 OR S17 OR S18
S20	53	S19 AND IC=(G06F? OR H04L?)
S21	36	S20 NOT AD>20010417
S22	36	IDPAT (sorted in duplicate/non-duplicate order)
S23	35	IDPAT (primary/non-duplicate records only)

File 348:EUROPEAN PATENTS 1978-2003/Nov W02
(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20031113,UT=20031106
(c) 2003 WIPO/Univentio

23/5,K/11 (Item 11 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2003 European Patent Office. All rts. reserv.

00879147

Transponder

Transponder

Repondeur

PATENT ASSIGNEE:

TEXAS INSTRUMENTS DEUTSCHLAND GMBH, (454490), Haggertystrasse 1, 85356
Freising, (DE), (Applicant designated States: all)

INVENTOR:

Meier, Herbert, Am Muhlbachbogen 11, 85368 Moosburg, (DE)

LEGAL REPRESENTATIVE:

Degwert, Hartmut, Dipl.-Phys. et al (38536), Prinz & Partner GbR,
Manzingerweg 7, 81241 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 805575 A2 971105 (Basic)
EP 805575 A3 020306

APPLICATION (CC, No, Date): EP 97107293 970502;

PRIORITY (CC, No, Date): US 16862 960503

DESIGNATED STATES: DE; FR; GB; IT; NL

INTERNATIONAL PATENT CLASS: H04L-009/32 ; H04L-009/18 ; G06K-019/07

ABSTRACT EP 805575 A2

Novel means of achieving increased security while still obtaining a low cost, manufacturable device are disclosed and claimed. The first mode of operation is the learn mode which provides means for initial checkout with no security. In the learn mode of operation, the interrogator and transponder may be switched to a predetermined error detection algorithm, i.e. CCITT(Start Mask 46, CCITT Mask 42), and certain information is programmed into the transponder memory. During programming, all the bits received from the interrogator are shifted through the preinitialized CRC generator. In addition, once the transponder response is sent back to the interrogator, the response is also shifted through a preinitialized CRC generator within the interrogator(which could be a software implementation). Because neither the Cypher Key 58 nor the Function Key 56 are directly readable once programmed, an encryption must be performed to verify the proper Cypher Key 58 and Function Key 56 were programmed into the transponder's memory. In the second and encryption mode of operation, after a special Command/Address is transmitted, a Random Number (which may vary in length but which has a minimum length) is transmitted from the interrogator to the transponder which in turn generates the Signature by shifting the Random Number through the CRC Encryption Generator (initialized with the Cypher 58 and Function Key 56). The Signature along with data, status and address are transmitted back to the interrogator which in the meantime has predetermined the awaited Signature using the same Cypher 58 and Function Key 56.

If the received Signature and calculated Signature are equal, validation is positive and then the programmed data must be locked(especially the Cypher Key 58 and Function Key 56) to protect them against reprogramming in the future

ABSTRACT WORD COUNT: 285

NOTE:

Figure number on first page: 3

LEGAL STATUS (Type, Pub Date, Kind, Text):

Change: 020306 A2 International Patent Classification changed: 20020117
Application: 971105 A2 Published application (A1with Search Report ;A2without Search Report)
Change: 030319 A2 Legal representative(s) changed 20030128
Examination: 021023 A2 Date of request for examination: 20020820
Search Report: 020306 A3 Separate publication of the search report
Examination: 021127 A2 Date of dispatch of the first examination report: 20021014
*Assignee: 980610 A2 Applicant (transfer of rights) (change): TEXAS INSTRUMENTS DEUTSCHLAND GMBH (454490) Haggertystrasse 1 85356 Freising (DE)

(applicant designated states: DE;FR;GB;IT;NL)
*Assignee: 980610 A2 Previous applicant in case of transfer of
rights (change): TEXAS INSTRUMENTS INCORPORATED
(279070) 13500 North Central Expressway Dallas
Texas 75265 (US) (applicant designated states:
DE;FR;GB;IT;NL)

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9710W5	1508
SPEC A	(English)	9710W5	4477
Total word count - document A			5985
Total word count - document B			0
Total word count - documents A + B			5985

INTERNATIONAL PATENT CLASS: H04L-009/32 ...

... H04L-009/18

...CLAIMS said Function Key is programmed into a memory post manufacturing
by a customer.

10. An **RF - ID** system comprising:
 - a **transponder** having a generator for receiving an interrogation signal
and transmitting response data;
 - an interrogator having...

23/5,K/24 (Item 24 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.

00811705 **Image available**

**A METHOD AND SYSTEM FOR ESTABLISHING A SHORT-RANGE RADIO LINK
PROCEDE ET SYSTEME PERMETTANT D'ETABLIR UNE LIAISON RADIO COURTE DISTANCE**

Patent Applicant/Assignee:

TELEFONAKTIEBOLAGET LM ERICSSON (publ), S-126 25 Stockholm, SE, SE
(Residence), SE (Nationality)

Inventor(s):

PHILIPSSON Lars, Bredgatan 7B, S-222 21 Lund, SE,

Legal Representative:

STROM Tore (et al) (agent), Strom & Gulliksson AB, Box 4188, S-203 13
Malmo, SE,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200145319 A1 20010621 (WO 0145319)

Application: WO 2000SE2538 20001215 (PCT/WO SE0002538)

Priority Application: SE 994683 19991217

Designated States: AE AG AL AM AT AT (utility model) AU AZ BA BB BG BR BY
BZ CA CH CN CR CU CZ CZ (utility model) DE DE (utility model) DK DK
(utility model) DM DZ EE EE (utility model) ES FI FI (utility model) GB
GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA
MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SK (utility model)
SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

((OAPI utility model)) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: **H04L-009/08**

International Patent Class: H04Q-007/32

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 3927

English Abstract

A method and system for establishing a first short-range radio link, operating within a first link range (13), between a stationary unit (12) and a mobile communication device (10, A) in a wireless network environment, wherein the stationary unit (12) transmits an interrogation signal to said mobile communication device (10, A) via a short-range communication link operating within a second link range (14) essentially smaller than said first link range (13). The mobile communication device (10, A) receives the interrogation signal from the stationary unit (12), and generates and transmitting a respond signal, including a unique identification number of the mobile communication device (10, A), to said interrogation signal. The stationary unit (12) receives said respond signal, and authenticate the identification number. Finally, the stationary unit (12) and said mobile communication device (10, A) establish a connection via said first short-range radio link.

French Abstract

L'invention concerne un procede et un systeme permettant d'etablir une premiere liaison radio courte distance, fonctionnant dans les limites d'une premiere portee (13), entre une unite fixe (12) et un dispositif (10, A) de communication mobile dans un environnement du type reseau hertzien. Selon ledit procede, l'unite fixe (12) envoie un signal d'interrogation audit dispositif (10, A) de communication mobile via une liaison de communication courte distance fonctionnant dans les limites d'une seconde portee (14), sensiblement plus petite que la premiere portee (13). Le dispositif (10, A) de communication mobile recoit le signal d'interrogation emis par l'unite fixe (12), et en reponse audit signal d'interrogation, il genere et transmet un signal de reponse comprenant le numero d'identification unique du dispositif (10, A) de communication mobile. L'unite fixe (12) recoit le signal de reponse et

authentifie le numero d'identification. Enfin, l'unite fixe (12) et le dispositif (10, A) de communication mobile etablissent une connexion via la premiere liaison radio courte distance.

Legal Status (Type, Date, Text)

Publication 20010621 A1 With international search report.

Examination 20010920 Request for preliminary examination prior to end of 19th month from priority date

Main International Patent Class: H04L-009/08

Fulltext Availability:

Detailed Description

Detailed Description

... object of the invention is to provide a mobile communication device for use in a **wireless** communication network, comprising a an ID **transponder** for receiving an interrogation signal from a stationary unit and generating a respond signal to...

...is a block diagram of a mobile communication device according to the invention including an ID **transponder** ,

FIG 3 is a schematic diagram of a first embodiment of the ID **transponder** in FIG 21

FIG 4A is a block diagram of a first embodiment of a...

...of a wireless

communication system according to the invention. For the purpose of illustration the **wireless** communication system according to the invention is described in connection with a particular **wireless** communication application, wherein a first short-range radio link is to be established between a **wireless** electronic pay terminal 10 and a stationary point of sale terminal 12 for communication of transaction data during a payment procedure. In this embodiment of the invention a **Bluetooth** link with a range 13 of about 10m is used for the first short-range radio link.

An environment, such as in a supermarket, including several customers provided with **wireless** electronic pay terminals 10 queuing at a plurality of point of sale terminals 12 for...

...the first link range 13.

The pay terminal 10 further comprises a passive radio frequency ID **transponder** 22 for communication with said point of sale terminal 12 via a short-range radio...

23/5,K/26 (Item 26 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.

00801792 **Image available**

**BANDWIDTH EFFICIENT PULSE PROCESSOR FOR RFID DATA COMMUNICATION
PROCESSEUR D'IMPULSION EFFICACE DE LARGEUR DE BANDE POUR LA COMMUNICATION
DE DONNEES D'IDENTIFICATION DE FREQUENCES RADIO**

Patent Applicant/Assignee:

CHECKPOINT SYSTEMS INC, 101 Wolf Drive, P.O. Box 188, Thorofare, NJ 08086
, US, US (Residence), US (Nationality)

Inventor(s):

SALESKI Ronald, 46 New Road, Tabernacle, NJ 08088, US,
FREED Michael K, 1315 North Clayton Street, Wilmington, DE 19806, US,
GALLAGHER William F III, 16 South Forge Manor Drive, Phoenixville, PA
19460, US,

INUI Shinichiro, 44 Treaty Elms Lane, Haddonfield, NJ 08033, US,

Legal Representative:

JABLON Clark A (et al) (agent), Akin, Gump, Strauss, Hauer & Feld,
L.L.P., One Commerce Square, Suite 2200, 2005 Market Street,
Philadelphia, PA 19103-7086, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200135318 A2-A3 20010517 (WO 0135318)

Application: WO 2000US41727 20001101 (PCT/WO US0041727)

Priority Application: US 99164180 19991109

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: **H04L-027/00**

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 2626

English Abstract

An interrogator is provided for reducing the bandwidth required for transmitting a command or control signals to a radio frequency identification transponder. The interrogator includes a carrier signal generator (RF OSC.), a modulator (10) which modulates the carrier signal with a shaped pulse envelope, and a transmitter (28) which transmits the modulated carrier signal to the transponder. The modulated carrier signal results in a reduced transmission signal bandwidth. The shaped pulse envelope may be a sinusoidal envelope, wherein the modulated carrier signal is a raised cosine modulated signal.

French Abstract

L'invention concerne un interrogateur permettant de reduire la largeur de bande necessaire a la transmission de signaux de commande ou de controle a un repondeur d'identification de frequences radio. L'interrogateur comprend un generateur de signaux porteurs, un modulateur qui module le signal porteur dote d'une enveloppe d'impulsions formees, et un emetteur qui transmet le signal porteur module au repondeur. Le signal porteur module se solde par une diminution de la largeur de bande des signaux de transmission. L'enveloppe de l'impulsion formee peut etre une enveloppe sinusoidale, ou le signal porteur module constitue un signal module de cosinus carre.

Legal Status (Type, Date, Text)

Publication 20010517 A2 Without international search report and to be
republished upon receipt of that report.

Examination 20010816 Request for preliminary examination prior to end of

19th month from priority date

Search Rpt 20011213 Late publication of international search report
Republication 20011213 A3 With international search report.

Main International Patent Class: **H04L-027/00**

Fulltext Availability:

Detailed Description

Detailed Description

... harmonic content of transmissions by imposing a sinusoidal amplitude modulation response on an radio frequency (**RF**) carrier that is used to remotely power and signal an **RFID transponder** .

Low cost **RFID** tags are powered by electric or magnetic fields from an interrogator or "reader". As can...

23/5,K/28 (Item 28 from file: 349)
DIALOG(R) File 349:PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.

00509352 **Image available**

**RADIO FREQUENCY IDENTIFICATION INTERROGATOR SIGNAL PROCESSING SYSTEM FOR
READING MOVING TRANSPONDERS
SYSTEME DE TRAITEMENT DE SIGNAUX D'IDENTIFICATEUR DE HAUTE FREQUENCE POUR
LA LECTURE DE TRANSPONDEURS MOBILES**

Patent Applicant/Assignee:

INTERMEC IP CORP,

Inventor(s):

ZAI Li-Cheng R,

CHIEU Trieu C,

MARTINEZ Rene D,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9940704 A1 19990812

Application: WO 99US2611 19990206 (PCT/WO US9902611)

Priority Application: US 9873933 19980206; US 98153617 19980915

Designated States: CA AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Main International Patent Class: **H04L-027/10**

International Patent Class: **H04L-027/14** ; H03D-003/22; H03D-003/00;

G01S-013/00; G01S-013/08; H04B-005/00; H04B-001/00; H04B-001/68

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 7485

English Abstract

An RF/ID interrogator (10) recovers a backscattered data signal from a moving **RF / ID transponder** (15) by combining the received in-phase (I) and quadrature-phase (Q) components of the signal in a manner. The RF/ID interrogator (10) comprises a radio (40) having a transmitter portion (40a) to provide an RF carrier signal and a receiver portion (40b) to receive the I and Q signals from the RF transponder (15). A processor (30) coupled to the radio and the filter executes stored instructions to combine the filtered (I) and (Q) signals and recovering the original backscattered data signal therefrom, and estimating a phase angle $\beta(t)$ between the I and Q signals and the RF carrier by calculating an arctangent of a ratio of the filtered Q and I signals and recovering the backscattered data signal by summing a product of filtered I signal and the cosine of the estimated phase angle $\beta(t)$ with a product of the filtered Q signal and the sine of the estimated phase angle $\beta(t)$.

French Abstract

La presente invention concerne un identificateur HF (10) qui recupere un signal de donnees retrodiffuse provenant d'un transpondeur RF/ID mobile (15) en combinant les composantes du signal recues en phase (I) et en quadrature de phase (Q). L'identificateur RF (10) comprend un dispositif de radiocommunication (40) comportant une partie emetteur (40a) emettant un signal porteur HF et une partie recepteur (40b) recevant les signaux I et Q du transpondeur HF (15). Un processeur (30) couple au dispositif de radiocommunication et au filtre execute des instructions stockees afin de combiner les signaux I et Q filtres et recuperer ainsi le signal de donnees retrodiffuse d'origine, évaluant un angle de phase $\beta(t)$ entre les signaux I et Q et le signal porteur HF en calculant une arc-tengante d'un rapport entre les signaux I et Q filtres et recuperer le signal de donnees retrodiffuse en additionnant le produit du signal I filtre et du cosinus de l'angle de phase $\beta(t)$ evalúe et le produit du signal Q filtre et du sinus de l'angle de phase $\beta(t)$ evalúe.

Main International Patent Class: **H04L-027/10**

International Patent Class: **H04L-027/14** ...

Fulltext Availability:

Detailed Description

English Abstract

An RF/ID interrogator (10) recovers a backscattered data signal from a moving **RF / ID transponder** (15) by combining the received in-phase (I) and quadrature-phase (Q) components of the...

Detailed Description

... OF THE INVENTION

I . Field of the Invention

The invention relates to radio frequency identification (**RF /ID**) interrogators and transponders, and more particularly, to an RF/ID interrogator that can recover data...

...varying amounts of an electromagnetic field provided by an RF/ID interrogator by modifying their **antenna** matching impedances. The RF/ **ID transponders** can therefore operate independent of the frequency of the energizing field, and as a result...

...radio frequency (RF) interference, such as utilizing frequency hopping spread spectrum modulation techniques. The RF/ **ID transponders** may either be passive, in which they extract their power from the electromagnetic field provided by the interrogator, or active, in which they include their own power source.

Since RF/ **ID transponders** do not include a radio transceiver, they can be

manufactured in very small, light weight and inexpensive units. Passive RF/ **ID transponders** are particularly cost effective since they lack a power source. In view of these advantages, **RF /ID transponders** can be used in **many types** of applications in which it is desirable to track information regarding a moving or inaccessible object. One such application is to affix **RF / ID transponders** to work pieces moving along a conveyor belt of an assembly line. The RF/ID **transponders** would contain stored information regarding the particular assembly requirements for the work piece to enable...

...line without having to modify the assembly line for each unique requirement. Another application for **RF /ID** systems is to collect information from a moving motor vehicle, such as for vehicle...a typical data packet at a rate of 40 kilobits per second (kpbs)). Thus, an **RF / ID transponder** moving at a rate of about 1,500 cm/sec, or 34 miles per hour...

...to provide an RF/ID interrogator having a capability of recovering data from a moving **RF / ID transponder** .

2

SUMMARY OF THE INVENTION

In accordance with the teachings of the present invention, an...

...manner that cancels out the amplitude nulls and phase reversals caused by movement of the **RF / ID transponder** .

More particularly, the **RF /ID** interrogator comprises a radio having a **transmitter** portion to provide an **RF** carrier signal and a receiver portion to receive the I and Q signals from the...described briefly.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a block diagram illustrating an **RF / ID** interrogator and **transponder** ;

Fig. 2 is an embodiment of the **RF /ID** interrogator of Fig. 1;

Fig. 3A-31D are graphs illustrating the transponder signal at...

...need for an RF/ID interrogator having a capability of recovering data from a moving **RF / ID transponder** . In the detailed description that follows, like element numerals are used to describe like elements...

Set	Items	Description
S1	712092	BADGE? OR BUTTON? OR PIN OR PINS OR FOB OR FOBS OR TOKEN? - OR CARD? ? OR ID OR IDS
S2	40264	S1(3N) (SMART? OR INTELLIGENT? OR CHIP? OR IC OR INTEGRATED- ()CIRCUIT? OR TRANSPONDER?)
S3	285992	WIRELESS? OR RF OR RADIOFREQ? OR IR OR INFRARED? OR WIFI - OR WAP OR BLUETOOTH? OR CELLULAR?
S4	1838031	ACCESS? OR CLEARANCE? OR PERMISSION? OR PERMIT? OR ALLOW?
S5	167002	(MULTIPL? OR SEVERAL OR VARIOUS OR VARIETY OR MANY OR PLUR- AL?) (3N) (LEVEL? OR TIER? OR TYPE?) OR MULTILEVEL? OR MULTILAY- ER?
S6	3425043	NETWORK? OR SYSTEM? OR LAN? OR DATABASE? OR DATA() (BASE? OR BANK?) OR DATABANK? OR WEBSITE? OR WEBPAGE? OR WEB() (SITE? OR PAGE?) OR INTRANET?
S7	547163	BEACON? OR TRANSMITTER? OR TRANSPONDER? OR ANTENNA? OR REC- EIVER?
S8	4	S2 AND S3 AND S4 AND S5
S9	434	S2 AND S3 AND S7
S10	5	S9 AND S5
S11	243	S9 AND S6
S12	131	S11 AND (CONTROL? OR MONITOR? OR MANAGE? OR ADMINIST?)
S13	29	S12 AND IC=G06F?
S14	243	S1 AND S11
S15	131	S14 AND S12
S16	16	S15 AND (BUILDING? OR FLOOR? ? OR DOORWAY? OR ENTRANCE? OR ENTRY OR COMPOUND? OR CAMPUS?)
S17	53	S8 OR S10 OR S13 OR S16
S18	31	S17 AND IC=(G06F? OR H04L?)
S19	31	IDPAT (sorted in duplicate/non-duplicate order)
S20	31	IDPAT (primary/non-duplicate records only)

File 347:JAPIO Oct 1976-2003/Jul(Updated 031105)
(c) 2003 JPO & JAPIO

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200374
(c) 2003 Thomson Derwent

20/5/6 (Item 6 from file: 350)
DIALOG(R) File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

015065981 **Image available**
WPI Acc No: 2003-126497/200312

Method for operating computer security device in network
Patent Assignee: YOON D M (YOON-I)
Inventor: YOON D M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
KR 2002065284	A	20020813	KR 20015721	A	20010206	200312 B

Priority Applications (No Type Date): KR 20015721 A 20010206

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
KR 2002065284	A	1	G06F-015/00	

Abstract (Basic): KR 2002065284 A

NOVELTY - A method for operating a computer security device in a **network** is provided to **control** a series of actions for logging onto a **network system** by preparing an **RF** (Radio Frequency) receiving unit in a slot of a computer and using an **IC card**.

DETAILED DESCRIPTION - A **network system** comprises an ID card reading unit and a server. The ID card reading unit reads the user information stored in a non-contact **IC card**. The server forms a client **network** with computers having storage units and stores the natural IC information of respective client computers. In the storage unit of the computer, user information is embedded. If the **IC card** passes by a magnetic field formed in a specific area via an **RF antenna**, the user information stored in the **IC card** is read to authenticate a user. With the first user authentication, a corresponding computer is operated normally. With the second user authentication, the computer **system** is changed into the **network** log-on state.

pp; 1 DwgNo 1/10

Title Terms: METHOD; OPERATE; COMPUTER; SECURE; DEVICE; **NETWORK**

Derwent Class: T01; T04

International Patent Class (Main): **G06F-015/00**

File Segment: EPI

20/5/12 (Item 12 from file: 350)
DIALOG(R) File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

014639621 **Image available**
WPI Acc No: 2002-460325/200249
XRPX Acc No: N02-363414

Attendance and absence management system in school, converts ID
information from each IC card and is transmitted to remote receiver
through infrared transmitter

Patent Assignee: DAINIPPON PRINTING CO LTD (NIPQ)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2002140668	A	20020517	JP 2000334065	A	20001101	200249 B

Priority Applications (No Type Date): JP 2000334065 A 20001101

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2002140668	A	6	G06K-019/00	

Abstract (Basic): JP 2002140668 A

NOVELTY - The reader reads the **ID** information from an **IC card**
(2) attached to clothes of each student. A converter converts the read
information and is transmitted to a remote **receiver** (18) through **IR**
transmitter . Based on the received information, the presence/absence
information is stored.

USE - For **management** of students attendance and absence in
schools, university.

ADVANTAGE - Enables reliable collection of presence/absence
information of each student, hence illegal practice among students is
prevented. Transmission efficiency is enhanced by using **infrared**
rays.

DESCRIPTION OF DRAWING(S) - The figure shows a model classroom
using the **management system** .

IC card (2)

Remote **receiver** (18)

pp; 6 DwgNo 1/6

Title Terms: ATTEND; ABSENCE; **MANAGEMENT** ; **SYSTEM** ; SCHOOL; CONVERT; ID;
INFORMATION; IC; CARD; TRANSMIT; REMOTE; RECEIVE; THROUGH; **INFRARED** ;
TRANSMIT

Derwent Class: T01; T04

International Patent Class (Main): G06K-019/00

International Patent Class (Additional): **G06F-017/60** ; G06K-017/00;

G06K-019/10

File Segment: EPI

20/5/13 (Item 13 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

014516487 **Image available**
WPI Acc No: 2002-337190/200237

System for individually managing loan articles with rf chip and
system for integrally managing articles of profit sharing method
Patent Assignee: KOREA INTERNET DISTRIBUTION SYSTEMS INC (KOIN-N)

Inventor: JANG G C

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
KR 2001107069	A	20011207	KR 200028257	A	20000525	200237 B

Priority Applications (No Type Date): KR 200028257 A 20000525

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
KR 2001107069	A		1	G06F-017/60	

Abstract (Basic): KR 2001107069 A

NOVELTY - A **system** for individually managing loan articles with **RF** chip and a **system** for integrally managing articles of a profit sharing method are provided to promptly calculate fees by using a chargeable card, and enable both a **web site** operator and a rental shop to make profits.

DETAILED DESCRIPTION - A **receiver** (11) receives a separation information transferred from an article separation device(B). A **smart card** reader(12) reads a record information of a **smart card** and updates the record information of the **smart card** that is granted to a customer. A keypad(13) is used for inputting the customer's password. A printer(14) issues a receipt when a fee calculation is completed. An **RF** chip reader(15) reads a record information of an **RF** chip attached to a loan article. A displayer(16) displays a relational information, return state, etc. A **controller** (10) **controls** operation of each part. A memory(17) stores a **database** information and a customer information, and a **control** program for performing a **control** operation of the **controller** . The memory(17) has a ROM and a RAM therein.

pp; 1 DwgNo 1/10

Title Terms: **SYSTEM** ; INDIVIDUAL; **MANAGE** ; LOAN; ARTICLE; **RF** ; CHIP;
SYSTEM ; INTEGRAL; **MANAGE** ; ARTICLE; PROFIT; SHARE; METHOD

Derwent Class: T01

International Patent Class (Main): **G06F-017/60**

File Segment: EPI

20/5/16 (Item 16 from file: 350)
DIALOG(R) File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

014351779 **Image available**
WPI Acc No: 2002-172480/200223
XRPX Acc No: N02-130982

Flight passenger and luggage checking-in method in airport, involves storing personal and traveling details of passenger along with his fingerprint data in memory chip installed in his luggage

Patent Assignee: KUTSCHKE E J (KUTS-I); LUEDI H E (LUED-I); STAUB P (STAU-I)

Inventor: KUTSCHKE E J; LUEDI H E; STAUB P
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 10007127	A1	20010823	DE 1007127	A	20000217	200223 B

Priority Applications (No Type Date): DE 1007127 A 20000217

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
DE 10007127	A1	9	G06F-017/60	

Abstract (Basic): DE 10007127 A1

NOVELTY - A terminal connected to airport processor acquires passenger traveling details from his flight ticket and personal details like name, address, etc. Luggage weight data, personal and traveling details are stored along with passenger's fingerprint data in memory chip installed in the luggage. A boarding card with passenger and luggage specific data is issued by the terminal.

USE - For finding owner of specific luggage or luggage of particular passenger in airport.

ADVANTAGE - Enables finding real owner of luggage or detection of theft etc., as fingerprint of passenger is stored in memory chip installed in his luggage. Eases detection of lost luggage and simplifies loading of luggage in correct plane. As the memory chip has **antenna**, the stored data can be read through **wireless** communication and collected in **database** of central airport processor. Improves security by avoiding unauthorized loading of luggage. Use of boarding **card** along with memory **chip** installed in luggage facilitates locating passenger as well as his luggage.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart of passenger locating and luggage **management** method.

pp; 9 DwgNo 1a/1

Title Terms: FLIGHT; PASSENGER; LUGGAGE; CHECK; METHOD; AIRPORT; STORAGE; PERSON; DETAIL; PASSENGER; FINGERPRINT; DATA; MEMORY; CHIP; INSTALLATION; LUGGAGE

Derwent Class: Q25; Q35; S05; T04; T05

International Patent Class (Main): **G06F-017/60**

International Patent Class (Additional): B64F-001/32; B65G-047/50

File Segment: EPI; EngPI

20/5/17 (Item 17 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

014107581 **Image available**
WPI Acc No: 2001-591793/200167
XRPX Acc No: N01-440974

Smart card **memory** management system allowing card users access to
a number of services offered by a town

Patent Assignee: POUPEAU J M (POUP-I)

Inventor: POUPEAU J M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2806813	A1	20010928	FR 20003482	A	20000317	200167 B

Priority Applications (No Type Date): FR 20003482 A 20000317

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
FR 2806813	A1		14	G06F-012/06	

Abstract (Basic): FR 2806813 A1

NOVELTY - The card memory includes an allocation table (**RF**), containing the addresses of different applications, which forms a the top of a repertoire (GD) and file (GF) tree. The allocation table is described as a function of repertoire numbers contained in the latter. Each repertoire is described as a function of file numbers contained in the latter. Each file is described as a function of the data length contained in the latter, on one or several memory blocks chained together.

DETAILED DESCRIPTION - The **system** is of the type which has a number of card (1) terminals. Each card has a memory (10) containing a matrix of n sectors (12) with p memory blocks (13) and a block access **controller** (11). The card memory is **managed** by the terminals (2) microprocessor (21) via the block access **controller** . Preferably the data raster defining the allocation table essentially includes the implantation addresses of the applications, the type of application support, a file or repertoire, and its identifier.

USE - For access to various town information services.

ADVANTAGE - Designed to allow a user to access a number of services using a single card.

DESCRIPTION OF DRAWING(S) - The drawings illustrates a non contact **smart card** , terminal and memory

smart card (1)
card reader (2)
memory (10)
transmitter / receiver circuit (11)
sectors (12)
memory blocks (13)
data **transmitter / receiver** circuit (20)
microprocessor, memory and internal clock (21,22,23)
pp; 14 DwgNo 1, 2a/2

Title Terms: SMART; CARD; MEMORY; **MANAGEMENT** ; **SYSTEM** ; ALLOW; CARD; USER
; ACCESS; NUMBER; SERVICE; OFFER; TOWN

Derwent Class: T01; T04

International Patent Class (Main): **G06F-012/06**

International Patent Class (Additional): G06K-019/07

File Segment: EPI

20/5/20 (Item 20 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

013877275 **Image available**
WPI Acc No: 2001-361487/200138
Related WPI Acc No: 2001-350138; 2001-350139; 2001-350140
XRPX Acc No: N01-263191

Loan goods control system in library, includes host PC which manages publication based on information read from wireless IC card
Patent Assignee: KOKUSAI DENKI KK (KOKZ); HITACHI KOKUSAI DENKI KK (KOKZ)

Inventor: AKAIKE K; ARIDOME H; IGARASHI K; MIURA Y; OGAWA T; OTANI Y
Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2001101285	A	20010413	JP 99276786	A	19990929	200138 B
US 6595418	B1	20030722	US 2000663849	A	20000918	200354

Priority Applications (No Type Date): JP 99276786 A 19990929; JP 99273807 A 19990928; JP 99273808 A 19990928; JP 99273809 A 19990928

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2001101285	A	8	G06F-017/60	
US 6595418	B1		G06K-005/00	

Abstract (Basic): JP 2001101285 A

NOVELTY - A **wireless IC card** outputs stored predetermined information about a publication, as **wireless** signal. A loop **antenna** (30) receives **wireless** signal from **wireless IC card**. A reader (40) reads information from **wireless IC card** based on the signal received from loop **antenna**. A host PC (100) **manages** a publication based on read information.

USE - For managing lending-out situation of loan goods such as publication, CD in library.

ADVANTAGE - In addition to stock taking **management** of goods, and lending-out **management** service, simple various **management** such as prevention of real time position detection of goods, and in accurate carrying out, are performed by attaching **wireless IC card** in goods such as publication for a loan, hence saves labor.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of entire component of goods **control system**. (Drawing includes non-English **language** text).

Loop **antenna** (30)

Reader (40)

Host PC (100)

pp; 8 DwgNo 10/15

Title Terms: LOAN; GOODS; **CONTROL** ; **SYSTEM** ; LIBRARY; HOST; **MANAGE** ; PUBLICATION; BASED; INFORMATION; READ; **WIRELESS** ; IC; CARD

Derwent Class: P25; Q35; T01; T04; V03; W05

International Patent Class (Main): **G06F-017/60** ; G06K-005/00

International Patent Class (Additional): B65G-001/137; **G06F-003/06** ;

G06F-003/08 ; G06K-017/00; G06K-019/00; G06K-019/07; G08B-013/22

File Segment: EPI; EngPI

30/5/3 (Item 3 from file: 347)
DIALOG(R) File 347:JAPIO
(c) 2003 JPO & JAPIO. All rts. reserv.

06338713 **Image available**
ACCESS CONTROL SYSTEM AND ACCESS CONTROL METHOD

PUB. NO.: 11-280317 [JP 11280317 A]
PUBLISHED: October 12, 1999 (19991012)
INVENTOR(s): HSU SHI-PING
EVANS BRUCE W
MESSENGER ARTHUR F
ZSOLNAY DENES L
APPLICANT(s): TRW INC
APPL. NO.: 10-352685 [JP 98352685]
FILED: December 11, 1998 (19981211)
PRIORITY: 995328 [US 995328], US (United States of America), December
22, 1997 (19971222)
INTL CLASS: E05B-049/00; **G06F-015/00** ; **G06F-019/00** ; G07D-009/00;
G07F-019/00

ABSTRACT

PROBLEM TO BE SOLVED: To obtain safety and convenience to an access system to a building or a machine such as an automatic teller machine(ATM).

SOLUTION: When a user 10 holds or bears an identification **badge** 18 containing a **transponder** and approaches an **access - controlled** door 12, a temporary identification data is transmitted to an **access controller** 14. The **access controller** 14 accesses a fingerprint data base by using a temporary identification data such as a customer number or an employee number, and calls a reference fingerprint data beforehand stored in the fingerprint data base. The called reference fingerprint data is compared with an object fingerprint image obtained from the user 10 through a fingerprint sensor 16 for the door by a fingerprint collator, the temporary identification data is confirmed, and the user is accessed to a permitted door or machine.

COPYRIGHT: (C)1999,JPO

30/5/6 (Item 3 from file: 350)
DIALOG(R) File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

012882776 **Image available**
WPI Acc No: 2000-054609/200005
XRPX Acc No: N00-042588

Access control method for access-restricted system e.g. for mobile
radio and pay TV-system - requiring service provider to scan
identification information of user mobile telephone for judging whether
access authorisation can be granted, or not

Patent Assignee: SIEMENS AG (SIEI)
Inventor: BURCHARD B; PRANGE S
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19846452	A1	19991216	DE 1046452	A	19981008	200005 B

Priority Applications (No Type Date): DE 1046452 A 19981008

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 19846452	A1		6	H04L-009/32	

Abstract (Basic): DE 19846452 A

The method of monitoring access to a access-restricted system, such
as a television (TV) **receiver** , involves deriving identification
information from the user information which is stored on a
user-specified **smart - card** (11) for a mobile telephone (3).

The identification information of the mobile telephone is scanned
and from the obtained identification information it is judged whether
access authorisation for use of the system by the respective use is
allowed or not. An independent claim is given for the access-restricted
system.

USE - For data or information service, such as pay-phone or pay-
TV.

ADVANTAGE - Access is simplified especially to different service
outputs or different servers.

Dwg.1/2

Title Terms: ACCESS; CONTROL; METHOD; ACCESS; RESTRICT; SYSTEM; MOBILE;
RADIO; PAY; TELEVISION; SYSTEM; REQUIRE; SERVICE; SCAN; IDENTIFY;
INFORMATION; USER; MOBILE; TELEPHONE; JUDGEMENT; ACCESS; AUTHORISE; CAN

Derwent Class: Q17; T01; W01; W02; W03

International Patent Class (Main): H04L-009/32

International Patent Class (Additional): B60R-011/02; B60R-025/00;

G06F-017/60 ; H04M-001/00; H04N-007/16

File Segment: EPI; EngPI

Set	Items	Description
S1	8	AU=(JAM M? OR JAM, M?)
S2	4	S1 AND IC=G06F?
S3	4	IDPAT (sorted in duplicate/non-duplicate order)
S4	3	IDPAT (primary/non-duplicate records only)

File 344:Chinese Patents Abs Aug 1985-2003/Apr
(c) 2003 European Patent Office

File 347:JAPIO Oct 1976-2003/Jul(Updated 031105)
(c) 2003 JPO & JAPIO

File 348:EUROPEAN PATENTS 1978-2003/Nov W02
(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20031113,UT=20031106
(c) 2003 WIPO/Univentio

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200374
(c) 2003 Thomson Derwent

4/5/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

015330659 **Image available**

WPI Acc No: 2003-391594/200337

XRPX Acc No: N03-312801

Context-aware computer management method in hospital, involves allowing smart badge wearers to access database information having clearance levels not higher than lowest clearance level of smart badge

Patent Assignee: JAM M (JAMM-I)

Inventor: JAM M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020152211	A1	20021017	US 2001836952	A	20010417	200337 B

Priority Applications (No Type Date): US 2001836952 A 20010417

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020152211	A1		9	G06F-007/00	

Abstract (Basic): US 20020152211 A1

NOVELTY - Several clearance levels are assigned to database information and each smart badge within the set of visible smart badges (210,212,214,216). The smart badges having lowest clearance level are identified, and the smart badge wearers are allowed to access database information having clearance level not higher than lowest clearance level.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) Computer-usable medium storing instructions for context-aware computer management; and

(2) System for context-aware computer management.

USE - For managing context-aware computer used for maintaining patient records in hospitals.

ADVANTAGE - Provides access only to information to authorized smart badge wearers based on clearance levels of the smart badge wearers. Enables monitoring and communicating with all the smart badges within a predefined area instead of smart badge wearers very close to or in front of the system.

DESCRIPTION OF DRAWING(S) - The figure shows the data flow diagram of system for context-aware computer management.

Smart badges (210,212,214,216)

pp; 9 DwgNo 2/3

Title Terms: CONTEXT; AWARE; COMPUTER; MANAGEMENT; METHOD; HOSPITAL; ALLOW; SMART; BADGE; WEAR; ACCESS; DATABASE; INFORMATION; CLEARANCE; LEVEL; HIGH; LOW; CLEARANCE; LEVEL; SMART; BADGE

Derwent Class: S05; T01; W05

International Patent Class (Main): G06F-007/00

File Segment: EPI

4/5/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

011204190 **Image available**

WPI Acc No: 1997-182114/199717

XRPX Acc No: N97-149825

High speed two way data communication modem - converts signals received in first frequency band to second band and converts frequency of signals to be transmitted

Patent Assignee: HEWLETT-PACKARD CO (HEWP)

Inventor: CHIU R; JAM M

Number of Countries: 005 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
-----------	------	------	-------------	------	------	------

EP 765061	A2	19970326	EP 96114645	A	19960912	199717	B
JP 9172452	A	19970630	JP 96252100	A	19960924	199736	
US 5787483	A	19980728	US 95532923	A	19950922	199837	
JP 3279487	B	20020430	JP 96252100	A	19960924	200230	

Priority Applications (No Type Date): US 95532923 A 19950922

Cited Patents: No-SR.Pub

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing	Notes
EP 765061	A2	E	61	H04L-029/06		
Designated States (Regional): DE FR GB						
JP 9172452	A		52	H04L-012/46		
US 5787483	A			G06F-012/00		
JP 3279487	B		54	H04L-012/46	Previous Publ.	patent JP 9172452

Abstract (Basic): EP 765061 A

The modem has a tuner which is connected to a transmission medium and tuned to receive a first signal on a first channel of the transmission medium. A front end processor is connected to the tuner to convert the first signal into first and second bit streams. A transmitter is connected to the transmission medium to transmit a second signal on a second channel of the transmission medium. An upstream controller is connected to the transmitter to transmit data packets based on the timing.

Preferably, a parallel processing system includes two state machine controlled devices and two register set addressable by the devices. A microprocessor is connected to the register sets. A memory access arbitration unit is connected to the devices and to a shared memory to allow only one device to access the memory at a time. A register file is connected to the microprocessor and to the first and second devices.

USE/ADVANTAGE - High speed two way video, audio and data communication on computer network. Allows client stations in network to communicate with signal conversion system. Allows several devices access to shared memory in parallel.

Dwg.1/18

Title Terms: HIGH; SPEED; TWO; WAY; DATA; COMMUNICATE; MODEM; CONVERT; SIGNAL; RECEIVE; FIRST; FREQUENCY; BAND; SECOND; BAND; CONVERT; FREQUENCY ; SIGNAL; TRANSMIT

Derwent Class: W01

International Patent Class (Main): G06F-012/00 ; H04L-012/46; H04L-029/06

International Patent Class (Additional): G06F-009/38 ; G06F-009/46 ; H04L-012/02; H04L-012/28; H04L-012/44

File Segment: EPI

4/5/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

011204184 **Image available**

WPI Acc No: 1997-182108/199717

XRPX Acc No: N97-149819

Two way high speed data communication cable network - has conversion system which transmits data in first frequency band and receives data in second and uses synchronisation signals in client station

Patent Assignee: HEWLETT-PACKARD CO (HEWP)

Inventor: CHIU R; JAM M

Number of Countries: 005 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 765055	A2	19970326	EP 96114644	A	19960912	199717 B
JP 9135235	A	19970520	JP 96252108	A	19960924	199730
US 5784597	A	19980721	US 95532918	A	19950922	199836
US 5883901	A	19990316	US 95532918	A	19950922	199918
			US 97972149	A	19971117	

Priority Applications (No Type Date): US 95532918 A 19950922; US 97972149 A

19971117

Cited Patents: No-SR.Pub

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
-----------	------	-----	----	----------	--------------

EP 765055	A2	E	63	H04L-012/28	
-----------	----	---	----	-------------	--

Designated States (Regional): DE FR GB

JP 9135235	A		52	H04L-005/00	
------------	---	--	----	-------------	--

US 5883901	A			H04J-003/06	Div ex application US 95532918
------------	---	--	--	-------------	--------------------------------

Div ex patent US 5784597

US 5784597	A			H04N-007/14	
------------	---	--	--	-------------	--

Abstract (Basic): EP 765055 A

The computer network for high speed data communication has a data transmission cable with a root and at least one leaf node. A signal conversion system (SCS) is attached to the root. At least one client station is attached to a distinct leaf node. The signal conversion system (SCS) has a transmitter which transmits down stream data onto the cable on a down stream channel in a second frequency band and a receiver which receives data from client stations on an up stream channel in a second frequency band. The downstream data includes synchronisation signals.

Each client station has a receiver that receives data on the first frequency band. A transmitter transmits data on a second frequency band according to synchronisation signals received on the first frequency band.

USE/ADVANTAGE - Computer network. High speed two-way video, audio and data communication. Allows client stations in network to communicate with signal conversion system. Allows several devices to have access to shared memory in parallel.

Dwg.1/18

Title Terms: TWO; WAY; HIGH; SPEED; DATA; COMMUNICATE; CABLE; NETWORK; CONVERT; SYSTEM; TRANSMIT; DATA; FIRST; FREQUENCY; BAND; RECEIVE; DATA; SECOND; SYNCHRONISATION; SIGNAL; CLIENT; STATION

Derwent Class: W01

International Patent Class (Main): H04J-003/06; H04L-005/00; H04L-012/28; H04N-007/14

International Patent Class (Additional): **G06F-001/12** ; H04L-005/26; H04L-007/00; H04L-012/40; H04L-012/413

File Segment: EPI

Set	Items	Description
S1	564029	BADGE? OR BUTTON? OR PIN OR PINS OR FOB OR FOBS OR TOKEN? - OR ID OR IDCARD? OR IDENTIFICATION()CARD? OR IDS
S2	7344	S1(3N)(SMART? OR INTELLIGENT? OR CHIP? OR IC OR INTEGRATED- ()CIRCUIT? OR TRANSPONDER?)
S3	285992	WIRELESS? OR RF OR RADIOFREQ? OR IR OR INFRARED? OR WIFI - OR WAP OR BLUETOOTH? OR CELLULAR?
S4	1838031	ACCESS? OR CLEARANCE? OR PERMISSION? OR PERMIT? OR ALLOW?
S5	167002	(MULTIPL? OR SEVERAL OR VARIOUS OR VARIETY OR MANY OR PLUR- AL?)(3N)(LEVEL? OR TIER? OR TYPE?) OR MULTILEVEL? OR MULTILAY- ER?
S6	3425043	NETWORK? OR SYSTEM? OR LAN? OR DATABASE? OR DATA() (BASE? OR BANK?) OR DATABANK? OR WEBSITE? OR WEBPAGE? OR WEB() (SITE? OR PAGE?) OR INTRANET?
S7	547163	BEACON? OR TRANSMITTER? OR TRANSPONDER? OR ANTENNA? OR REC- EIVER?
S8	2	S2 AND S3 AND S4 AND S5
S9	77	S2 AND S3 AND S7
S10	0	S9 AND S5
S11	36	S9 AND S6
S12	54	S2 AND S3 AND S4
S13	2	S2 AND S4(2N)S5
S14	4	S2 AND S4 AND S5 AND S7
S15	16	S9 AND IC=(G06F? OR H04L?)
S16	25	(S11 OR S12) AND IC=(G06F? OR H04L?)
S17	37	S8 OR S13 OR S14 OR S15 OR S16
S18	28	S17 NOT AD>20010417
S19	28	IDPAT (sorted in duplicate/non-duplicate order)
S20	28	IDPAT (primary/non-duplicate records only)

File 347:JAPIO Oct 1976-2003/Jul(Updated 031105)
(c) 2003 JPO & JAPIO

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200374
(c) 2003 Thomson Derwent

20/5/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

015330659 **Image available**
WPI Acc No: 2003-391594/200337
XRPX Acc No: N03-312801

Context-aware computer management method in hospital, involves allowing smart badge wearers to access database information having clearance levels not higher than lowest clearance level of smart badge

Patent Assignee: JAM M (JAMM-I)
Inventor: JAM M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020152211	A1	20021017	US 2001836952	A	20010417	200337 B

Priority Applications (No Type Date): US 2001836952 A 20010417

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20020152211	A1		9 G06F-007/00	

Abstract (Basic): US 20020152211 A1

NOVELTY - **Several clearance levels** are assigned to database information and each **smart badge** within the set of visible **smart badges** (210,212,214,216). The **smart badges** having lowest clearance level are identified, and the **smart badge** wearers are allowed to access database information having clearance level not higher than lowest clearance level.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) Computer-usable medium storing instructions for context-aware computer management; and

(2) System for context-aware computer management.

USE - For managing context-aware computer used for maintaining patient records in hospitals.

ADVANTAGE - Provides access only to information to authorized **smart badge** wearers based on clearance levels of the **smart badge** wearers. Enables monitoring and communicating with all the **smart badges** within a predefined area instead of **smart badge** wearers very close to or in front of the system.

DESCRIPTION OF DRAWING(S) - The figure shows the data flow diagram of system for context-aware computer management.

Smart badges (210,212,214,216)

pp; 9 DwgNo 2/3

Title Terms: CONTEXT; AWARE; COMPUTER; MANAGEMENT; METHOD; HOSPITAL; ALLOW; SMART; BADGE; WEAR; ACCESS; DATABASE; INFORMATION; CLEARANCE; LEVEL; HIGH; LOW; CLEARANCE; LEVEL; SMART; BADGE

Derwent Class: S05; T01; W05

International Patent Class (Main): G06F-007/00

File Segment: EPI

20/5/2 (Item 2 from file: 350)
DIALOG(R) File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

014779699

WPI Acc No: 2002-600405/200265

XRPX Acc No: N02-475903

Infrared **remote controller**

Patent Assignee: ACER COMPUTER CO LTD (ACER-N)

Inventor: CHEN J; HUA Y; LIANG D

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
CN 1351294	A	20020529	CN 2000130315	A	20001030	200265 B

Priority Applications (No Type Date): CN 2000130315 A 20001030

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
CN 1351294	A		G06F-013/10	

Abstract (Basic): CN 1351294 A

NOVELTY - An **infrared** remote controller is composed of an **infrared receiver** in the computer, an **infrared transmitter**, a **chip** set with **pins** for **infrared receiver** and sequence interfaces for connecting to CPU and peripherals of computer, switching circuit connected between sequence interface pins and **infrared receiver** for transmitting the **receiver** signals to the sequence interface pins, and an application program stored in CPU for providing control signal to actuate switching circuit. Its advantages are only used of a single **receiver** for receiving the signals in different encode modes, and saving space.

DwgNo 0/0

Title Terms: **INFRARED** ; REMOTE; CONTROL

Derwent Class: T01; W03

International Patent Class (Main): **G06F-013/10**

File Segment: EPI

20/5/8 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

014107292 **Image available**
WPI Acc No: 2001-591504/200167
XRPX Acc No: N01-440728

Data token for use as smart card, includes battery which is
disconnected from radio frequency generating device in the absence input
radio frequency signals

Patent Assignee: MAGNEX INC (MIGN-N); MAGNEX CORP (MAGN-N)

Inventor: LIN F; ZHU S

Number of Countries: 029 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1126407	A2	20010822	EP 2001301369	A	20010216	200167 B
JP 2001273056	A	20011005	JP 200140579	A	20010216	200173
CN 1313675	A	20010919	CN 2001110812	A	20010216	200202
TW 513674	A	20021211	TW 2001103615	A	20010226	200353

Priority Applications (No Type Date): US 2000506652 A 20000217

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
-----------	------	-----	----	----------	--------------

EP 1126407	A2	E	6	G06K-019/07	
------------	----	---	---	-------------	--

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT

LI LT LU LV MC MK NL PT RO SE SI TR

JP 2001273056	A	5	G06F-001/32	
---------------	---	---	-------------	--

CN 1313675	A		H03K-017/00	
------------	---	--	-------------	--

TW 513674	A		G06K-019/07	
-----------	---	--	-------------	--

Abstract (Basic): EP 1126407 A2

NOVELTY - A battery (17) is electrically disconnected from RF
generating device (18), in the absence of input radio frequency (RF)
signal. The battery (17) is connected to RF device when a frequency
selector (12) senses radio frequency signals.

USE - For use as smart card for entering secure portal, location
transponder , identifier age for cargo container, transponder tag for
domestic or wild animal, identifies tag for items in supermarket, sonar
responsive device for flight recorder. Also for use in RF checkout
system , credit card charging system , debit card system , fare
collection system and secure access facility.

ADVANTAGE - Since the battery is disconnected in the absence of
input RF signals, the operational range and lifetime of the data
token is increased.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of
the data token.

Frequency selector (12)

Battery (17)

RF generating device (18)

pp; 6 DwgNo 1/2

Title Terms: DATA; TOKEN; SMART; CARD; BATTERY; DISCONNECT; RADIO;

FREQUENCY; GENERATE; DEVICE; ABSENCE; INPUT; RADIO; FREQUENCY; SIGNAL

Derwent Class: T04; T05; U24; X16

International Patent Class (Main): G06F-001/32 ; G06K-019/07; H03K-017/00

International Patent Class (Additional): G06K-019/077; H02J-007/00

File Segment: EPI

20/5/11 (Item 11 from file: 350)
DIALOG(R) File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

013417724 **Image available**
WPI Acc No: 2000-589663/200056
XRPX Acc No: N00-436399

Patient guide system for use in hospitals, has information display unit which is characterized to give display priority to wireless signal received through antenna from ID reader

Patent Assignee: INABA ENG KK (INAB-N)
Number of Countries: 001 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2000187691	A	20000704	JP 98376136	A	19981221	200056 B
JP 3074529	B2	20000807	JP 98376136	A	19981221	200056

Priority Applications (No Type Date): JP 98376136 A 19981221

Patent Details:

Patent No	Kind	Int. No	Pg	Main IPC	Filing Notes
JP 2000187691	A		6	G06F-017/60	
JP 3074529	B2		5	G06F-017/60	Previous Publ. patent JP 2000187691

Abstract (Basic): JP 2000187691 A

NOVELTY - A patient is provided with a pair of ID cards (1) registered with same ID numbers. Card reader (2) outputs **wireless** signal to display unit (4) via **antenna** (3). Display unit (4) of patient guide **system** with pocket bell pager data display function displays preset or arbitrary selection messages. The display function is characterized to give priority to **wireless** signal from card reader to display information.

USE - For use in hospitals.

ADVANTAGE - Since **IC** card and **ID** number is provided, the delay in correspondence is avoided, due to prevention of human operation. Hence offers an improved patient guide **system** and reduces labor cost.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of patient guide **system**.

ID card (1)

Card reader (2)

Wireless antenna (3)

Information display unit (4)

pp; 6 DwgNo 1/7

Title Terms: PATIENT; GUIDE; **SYSTEM**; HOSPITAL; INFORMATION; DISPLAY; UNIT; DISPLAY; PRIORITY; **WIRELESS**; SIGNAL; RECEIVE; THROUGH; **ANTENNA**; ID; READ

Derwent Class: P85; S05; T01; T05; W05

International Patent Class (Main): **G06F-017/60**

International Patent Class (Additional): **G06F-019/00**; G09G-005/00; H04Q-007/14

File Segment: EPI; EngPI

20/5/18 (Item 18 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

011302630 **Image available**
WPI Acc No: 1997-280535/199725
XRPX Acc No: N97-232477

**Information management and security system for confidential business,
finance, military or intelligence data - has host network element
comparing identification of transponder with authorised identification
codes stored in memory**

Patent Assignee: TEXAS INSTR INC (TEXI)
Inventor: NERLIKAR V M
Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5629981	A	19970513	US 94283081	A	19940729	199725 B

Priority Applications (No Type Date): US 94283081 A 19940729

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5629981	A		20	H04L-009/00	

Abstract (Basic): US 5629981 A

The **system** includes an RFID **transponder badge** (302) and an **RF** reader transceiver (315) which is associated with a host peripheral or a **network** . The **RF** reader transceiver automatically identifies and verifies authorisation of the RFID **transponder badge** holder via a 'handshake' prior to **allowing access** to the host peripheral.

The energy generated by the transmission of the interrogation signal from the **RF** reader provides a power source which is accumulated and then used to activate a **transponder** (304) response from the badge. The **RF** reader/transceiver writes the **access** transaction on either the RFID **transponder badge** and/or the host peripheral **database** or the **network** controller.

ADVANTAGE - **System** is compatible with present office technology, yet will be compatible with potential integrated office equipment, **networks** and architectures of the future. Provides instantaneous, multiple secure **access** and minimises total life-cycle costs of managing secure information.

Dwg.1/7

Title Terms: INFORMATION; MANAGEMENT; SECURE; **SYSTEM** ; CONFIDE; BUSINESS;
FINANCIAL; MILITARY; INTELLIGENCE; DATA; HOST; **NETWORK** ; ELEMENT;
COMPARE; IDENTIFY; **TRANSPONDER** ; AUTHORISE; IDENTIFY; CODE; STORAGE;
MEMORY

Derwent Class: W01; W02; W06

International Patent Class (Main): **H04L-009/00**

File Segment: EPI

20/5/22 (Item 22 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

010191263 **Image available**
WPI Acc No: 1995-092517/199513
XRPX Acc No: N95-073144

Passive transponder for RF - ID system - forms CRC dependent upon security code that can only be altered with correct combination of selective address and time code

Patent Assignee: TEXAS INSTR DEUT GMBH (TEXI)
Inventor: MEIER H
Number of Countries: 006 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 640939	A2	19950301	EP 94113148	A	19940823	199513 B
US 5430447	A	19950704	US 93110454	A	19930823	199532
EP 640939	A3	19960110	EP 94113148	A	19940823	199620
EP 640939	B1	20000405	EP 94113148	A	19940823	200021
DE 69423830	E	20000511	DE 623830	A	19940823	200030
			EP 94113148	A	19940823	

Priority Applications (No Type Date): US 93110454 A 19930823
Cited Patents: No-SR.Pub; EP 309195; US 4454600; US 5022080
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 640939	A2	E	8	G06K-019/073	
Designated States (Regional): DE FR GB IT NL					
US 5430447	A		7	G01S-013/78	
EP 640939	A3			G06K-019/073	
EP 640939	B1	E		G06K-019/073	
Designated States (Regional): DE FR GB IT NL					
DE 69423830	E			G06K-019/073	Based on patent EP 640939

Abstract (Basic): EP 640939 A

The **transponder** operates from the charge built up during interrogation. The **transponder** forms a CRC code (16) from data received using a segment code stored in its memory. If the CRC is not correct the **transponder** is discharged.

In order to reprogram the segment code, the writing unit must also supply a selective address and a block check character (BCC). The selective address is compared (18) within the **transponder** and provides a time code that limits the time at which the **transponder** can be reprogrammed.

ADVANTAGE - Provides unique identification for **transponder** via number of security checks and measures.

Dwg.1/4

Title Terms: PASSIVE; **TRANSPONDER** ; RF ; ID; **SYSTEM** ; FORM; CRC; DEPEND;
SECURE; CODE; CAN; ALTER; CORRECT; COMBINATION; SELECT; ADDRESS; TIME;
CODE

Index Terms/Additional Words: **CYCLIC_REDUNDANCY** ; REDUNDANCY; CHECK

Derwent Class: T01; T05; T07; W02; W06

International Patent Class (Main): G01S-013/78; G06K-019/073

International Patent Class (Additional): G06K-001/12; G06K-007/00;

G06K-007/08; **H04L-009/32**

File Segment: EPI

20/5/24 (Item 24 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

009438307 **Image available**
WPI Acc No: 1993-131826/199316
XRPX Acc No: N93-100400

Computer workstation with associated identification card reader - has restricted access to all or some programs unless approp. card is inserted in reader.

Patent Assignee: KONINK NEDERLAND PTT NV (NEPO)

Inventor: SNEL E M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
NL 9101506	A	19930401	NL 911506	A	19910906	199316 B

Priority Applications (No Type Date): NL 911506 A 19910906

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
NL 9101506	A		13	G06F-001/00	

Abstract (Basic): NL 9101506 A

The workstation consists of a Central Processing Unit (1), Visual Display Unit (2), keyboard (3), mouse (4) and a card reader (5). The **identification card** (6) is a '**smart card**', i.e. one which contains an integrated circuit. After a successful log on procedure, the computer checks that the card is still in place at regular intervals.

Signals from the card are coupled to the reader by non-galvanic means, e.g. electromagnetic induction, ultrasound or **infrared**. To ensure that the card is removed at the end of a session, the same card is needed to operate an exit lock to the room containing the workstation.

Dwg.1/1

Title Terms: COMPUTER; ASSOCIATE; IDENTIFY; CARD; READ; RESTRICT; **ACCESS** ;

PROGRAM; CARD; INSERT; READ

Derwent Class: T01; T04; T05

International Patent Class (Main): **G06F-001/00**

International Patent Class (Additional): G07F-007/08

File Segment: EPI

L Number	Hits	Search Text	DB	Time stamp
4	513	((determin\$3 or verif\$3) near5 ((security or clearance) near3 (level or degree or status)))	USPAT; EPO; JPO; DERWENT	2003/11/20 14:06
5	1400	(door or gate or entrance) near7 (badge or tag)	USPAT; EPO; JPO; DERWENT	2003/11/20 14:07
6	1	((determin\$3 or verif\$3) near5 ((security or clearance) near3 (level or degree or status))) and ((door or gate or entrance) near7 (badge or tag)) and (wireless or transponder or RFID)	USPAT; EPO; JPO; DERWENT	2003/11/20 14:10
7	1	((determin\$3 or verif\$3) near5 ((security or clearance) near3 (level or degree or status))) and ((door or gate or entrance) near7 (badge or tag)) and (wireless or transponder or RFID)) and database	USPAT; EPO; JPO; DERWENT	2003/11/20 14:10